

=> file reg

FILE 'REGISTRY' ENTERED AT 17:18:29 ON 23 JAN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 22 JAN 2004 HIGHEST RN 640654-81-5  
DICTIONARY FILE UPDATES: 22 JAN 2004 HIGHEST RN 640654-81-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d his full

(FILE 'HOME' ENTERED AT 16:11:36 ON 23 JAN 2004)

FILE 'REGISTRY' ENTERED AT 16:12:08 ON 23 JAN 2004  
L1 66284 SEA 16.138.6/RID  
L2 3795 SEA 16.145.6/RID  
D L2 10 RSD  
L3 94421 SEA 16.136.10/RID  
L4 60178 SEA 333.84.17/RID  
L5 1107 SEA 333.94.9/RID  
L6 122962 SEA 333.79.30/RID  
L7 344101 SEA L1 OR L2 OR L3 OR L4 OR L5 OR L6

FILE 'LREGISTRY' ENTERED AT 16:17:35 ON 23 JAN 2004  
ACT EGW636/Q

L8

STR

ACT EGW636A/Q

L9

STR

ACT EGW636B/Q

Transcript 2  
All ring structures  
encompassed in  
Claim 28

L10

-----  
STR  
-----ACT EGW636C/Q  
-----

L11

-----  
STR  
-----ACT EGW636D/Q  
-----

L12

-----  
STR  
-----ACT EGW636E/Q  
-----

L13

-----  
STR  
-----

FILE 'REGISTRY' ENTERED AT 16:20:56 ON 23 JAN 2004  
L14 50 SEA SUB=L7 SSS SAM (L8 OR L9 OR L10 OR L11 OR L12 OR  
L13)

FILE 'HCAPLUS' ENTERED AT 16:23:44 ON 23 JAN 2004

L15 278887 SEA WANG ?/AU  
L16 9823 SEA NAGY ?/AU  
L17 174 SEA L15 AND L16  
L18 9848 SEA WANG Q?/AU  
L19 706 SEA NAGY S?/AU  
L20 19 SEA L18 AND L19  
L21 QUE OXID# OR OXIDN# OR OXIDI? OR OXIDA?  
L22 1 SEA L20 AND L21  
D ALL  
SELECT L22 1 RN

FILE 'REGISTRY' ENTERED AT 16:26:14 ON 23 JAN 2004

L23 10 SEA (159159-41-8/BI OR 201815-03-4/BI OR 22122-36-7/BI  
OR 4031-15-6/BI OR 497-23-4/BI OR 69556-70-3/BI OR  
87-41-2/BI OR 9002-86-2/BI OR 9002-88-4/BI OR 9003-07-0/B  
I)  
D SCAN  
L24 7 SEA L23 NOT PMS/CI  
D L14 QUE STAT  
L25 SCR 1918 OR 2043 OR 2049 OR 2127 OR 2040 OR 1929  
L26 50 SEA SUB=L7 SSS SAM (L8 OR L9 OR L10 OR L11 OR L12 OR  
L13) NOT L25  
D SAV  
D QUE STAT  
L27 143956 SEA SUB=L7 SSS FUL (L8 OR L9 OR L10 OR L11 OR L12 OR  
L13) NOT L25  
D SAV

DEL E?/Q  
SAVE TEMP L27 EGW636/A

L28 FILE 'HCAPLUS' ENTERED AT 16:49:14 ON 23 JAN 2004  
195924 SEA L27

L29 FILE 'LCA' ENTERED AT 16:51:00 ON 23 JAN 2004  
926 SEA ANTIOXID? OR (ANTI OR INHIBIT? OR HINDER? OR IMPED?  
OR ARREST? OR REDUC? OR REDN# OR RESIST? OR SUPPRESS? OR  
RETARD? OR PROHIBIT? OR PREVENT? OR BLOCK? OR ELIMINAT?  
OR LOW OR LOWER? OR DIMINISH? OR DECREAS? OR LESS?) (2A) (O  
XIDA? OR OXIDI? OR OXIDN# OR OXID#)

L30 FILE 'HCAPLUS' ENTERED AT 16:56:14 ON 23 JAN 2004  
384096 SEA ANTIOXID? OR (ANTI OR INHIBIT? OR HINDER? OR IMPED?  
OR ARREST? OR REDUC? OR REDN# OR RESIST? OR SUPPRESS? OR  
RETARD? OR PROHIBIT? OR PREVENT? OR BLOCK? OR ELIMINAT?  
OR LOW OR LOWER? OR DIMINISH? OR DECREAS? OR LESS?) (2A) (O  
XIDA? OR OXIDI? OR OXIDN# OR OXID#)

L31 142977 SEA PRESERV?  
L32 1337590 SEA STABILIZ? OR STABILIS? OR STABIL? OR STABLE#  
L33 13750 SEA L28 AND L30  
L34 3398 SEA L28 AND L31  
L35 17400 SEA L28 AND L32  
L36 189 SEA L33 AND L34 AND L35  
SAV L36 EGW636A/A  
L37 1485 SEA NONPHENOL? OR NON(A) PHENOL?  
L38 7 SEA (L33 OR L34 OR L35) AND L37  
L39 1 SEA L38 AND L22  
L40 16613 SEA L29(3A) (POLYM? OR COPOLYM? OR HOMOPOLYM? OR TERPOLYM?  
OR RESIN?)  
L41 1345 SEA PRESERV?(2A) (POLYM? OR COPOLYM? OR HOMOPOLYM? OR  
TERPOLYM? OR RESIN?)  
L42 50115 SEA L32(2A) (POLYM? OR COPOLYM? OR HOMOPOLYM? OR TERPOLYM?  
OR RESIN?)  
L43 359 SEA L28 AND L40  
L44 27 SEA L28 AND L41  
L45 1215 SEA L28 AND L42  
L46 44 SEA L43 AND L45  
L47 0 SEA L43 AND L44 AND L45  
L48 1 SEA L43 AND L37  
L49 1 SEA L45 AND L37  
L50 QUE (35 OR 36 OR 37 OR 38)/SC,SX  
L51 203 SEA L43 AND L50  
L52 6 SEA L44 AND L50  
L53 864 SEA L45 AND L50  
L54 4 SEA L36 AND L50  
SAV L29 ANTIOXID/Q

## ACT ANTIOXID/Q

L\*\*\* DEL        QUE ANTIOXID? OR (ANTI OR INHIBIT? OR HINDER? OR IMPED?  
-----

L\*\*\* DEL 384096 S L55  
L55        8438 SEA ?PTHALID?  
L56        14 SEA (L36 OR L43 OR L44 OR L45) AND L55

L57        FILE 'REGISTRY' ENTERED AT 17:14:05 ON 23 JAN 2004  
          3 SEA L23 NOT L24

L58        FILE 'HCAPLUS' ENTERED AT 17:14:28 ON 23 JAN 2004  
          288302 SEA L57  
L59        259 SEA (L36 OR L43 OR L44 OR L45) AND L58  
L60        6 SEA L36 AND L58  
L61        71 SEA L43 AND L58  
L62        5 SEA L44 AND L58  
L63        195 SEA L45 AND L58  
L64        38 SEA L38 OR L48 OR L49 OR L52 OR L54 OR L56 OR L60 OR L62  
  
L65        25 SEA L38 OR L48 OR L49 OR L52 OR L54 OR L60 OR L62  
L66        13 SEA L56 NOT L65  
L67        18 SEA L44 NOT (L65 OR L66)

FILE 'REGISTRY' ENTERED AT 17:18:29 ON 23 JAN 2004

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 22 JAN 2004 HIGHEST RN 640654-81-5  
DICTIONARY FILE UPDATES: 22 JAN 2004 HIGHEST RN 640654-81-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for detail

Experimental and calculated property data are now available. For mor  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

FILE LREGISTRY  
LREGISTRY IS A STATIC LEARNING FILE

FILE HCAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in search databases on STN. Any dissemination, distribution, copying, or storage of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Jan 2004 VOL 140 ISS 5  
FILE LAST UPDATED: 22 Jan 2004 (20040122/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

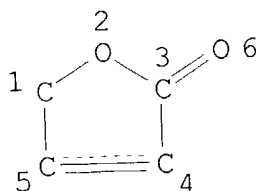
FILE LCA  
LCA IS A STATIC LEARNING FILE

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 127 que stat

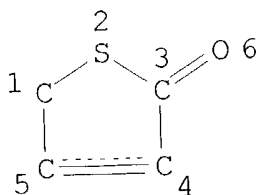
L1	66284	SEA	FILE=REGISTRY	16.138.6/RID
L2	3795	SEA	FILE=REGISTRY	16.145.6/RID
L3	94421	SEA	FILE=REGISTRY	16.136.10/RID
L4	60178	SEA	FILE=REGISTRY	333.84.17/RID
L5	1107	SEA	FILE=REGISTRY	333.94.9/RID
L6	122962	SEA	FILE=REGISTRY	333.79.30/RID
L7	344101	SEA	FILE=REGISTRY	L1 OR L2 OR L3 OR L4 OR L5 OR L6
L8		STR		



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 6

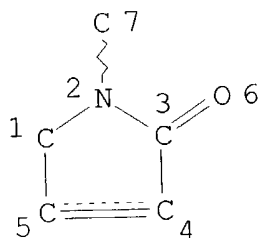
STEREO ATTRIBUTES: NONE  
L9 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 6

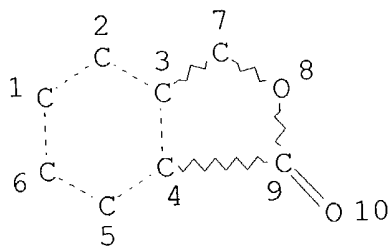
STEREO ATTRIBUTES: NONE  
L10 STR



NODE ATTRIBUTES:  
NSPEC IS RC AT 7  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 7

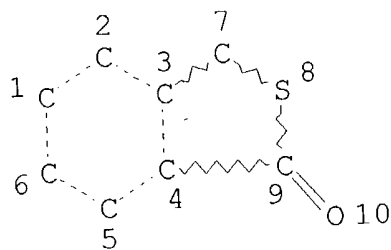
STEREO ATTRIBUTES: NONE  
L11 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 10

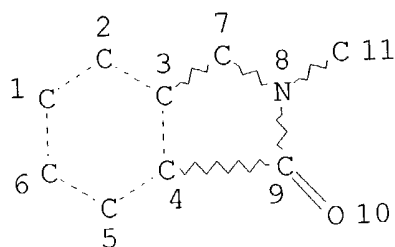
STEREO ATTRIBUTES: NONE  
L12 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE  
L13 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 11  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I  
NUMBER OF NODES IS 11

## STEREO ATTRIBUTES: NONE

L25 SCR 1918 OR 2043 OR 2049 OR 2127 OR 2040 OR 1929  
L27 143956 SEA FILE=REGISTRY SUB=L7 SSS FUL (L8 OR L9 OR L10 OR L11  
OR L12 OR L13) NOT L25

100.0% PROCESSED 144555 ITERATIONS  
SEARCH TIME: 00.00.05

143956 ANSWERS

=&gt; file hcaplus

FILE 'HCAPLUS' ENTERED AT 17:20:12 ON 23 JAN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Jan 2004 VOL 140 ISS 5  
FILE LAST UPDATED: 22 Jan 2004 (20040122/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d l65 1-25 cbib abs hitstr hitind

L65 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
2003:943786 Document No. 140:8799 Topical compositions containing corticosteroids and antifungal agents for the treatment of skin rashes, dermatosis and lesion. McCadden, Michael E. (USA). U.S. US



6656928 B1 20031202, 12 pp. (English). CODEN: USXXAM.  
APPLICATION: US 2000-652381 20000831. PRIORITY: US 1999-PV152067  
19990902.

AB A compn. for topical administration comprises (a) a corticosteroid, (b) a drying agent, and (c) a broad spectrum anti-fungal agent that treats both dermatophytes and yeast. Thus, a compn. contained hydrocortisone 1, clotrimazole 1, and calamine lotion 98%. One patient presented with balanoposthitis. The patient had a red glistening shiny patch on his glans penis, consistent with both balanoposthitis and a psoriasis-form dermatitis. He had a chronic rash on his penis for 5 yr, which did not clear after circumcision. The compn. cleared the rash in less than a month.

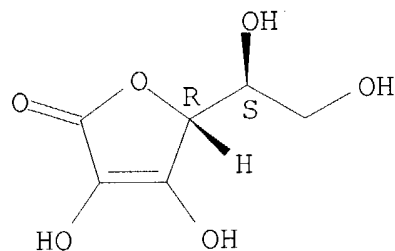
IT 50-81-7, Vitamin C, biological studies 9002-88-4,  
Polyethylene

(topical compns. contg. corticosteroids and antifungals for  
treatment of skin rashes and dermatosis and lesion)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

IC ICM A61K031-59

ICS A61K031-56; A01N043-50

NCL 514167000; 514171000; 514396000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT **Antioxidants**

Beeswax  
 Buffers  
 Dermatitis  
 Drying agents  
 Eczema  
 Emulsifying agents  
 Fungicides  
 Human  
 Humectants  
 Odor and Odorous substances  
 Perfumes

**Preservatives**

Pruritus  
 Psoriasis  
 Seborrhea  
 Skin, disease  
 Skin-infecting fungi  
 Solvents

**Stabilizing agents**

Thickening agents  
 Tinea (skin disease)  
 Viscosity  
 Yeast

(topical compns. contg. corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

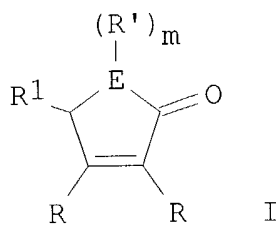
IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 53-06-5, Cortisone 56-81-5, Glycerin, biological studies 57-11-4, Stearic acid, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 58-73-1 59-50-7, 4-Chloro-m-cresol 60-33-3, Linoleic acid, biological studies 62-54-4, Calcium acetate 64-17-5, Ethyl alcohol, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-73-2, Fluocinolone acetonide 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 77-92-9D, Citric acid, esters with fatty alcs. 79-81-2, Retinyl palmitate 83-43-2, Methylprednisolone 83-88-5, Riboflavin, biological studies 89-78-1, Menthol 94-09-7, Benzocaine 94-13-3, Propylparaben 94-26-8, Butylparaben 99-76-3, Methylparaben 100-46-9D, Benzylamine, derivs. 100-51-6, Benzyl alcohol, biological studies 106-69-4, 1,2,6-Hexanetriol 107-11-9D, Allylamine, derivs. 107-41-5, Hexylene glycol 108-32-7, Propylene carbonate 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 111-01-3, Squalane 112-80-1, Oleic acid,

biological studies 112-92-5, Stearyl alcohol 115-77-5D,  
Pentaerythritol, esters with fatty acids 121-79-9, Propyl gallate  
125-10-0, Prednisone acetate 127-47-9, Retinyl acetate 128-37-0,  
Butylated hydroxytoluene, biological studies 139-33-3, Disodium  
edetate 140-65-8, Pramoxine 142-91-6, Isopropyl palmitate  
151-21-3, Sodium lauryl sulfate, biological studies 288-32-4D,  
Imidazole, derivs. 303-98-0, Coenzyme Q10 356-12-7, Fluocinonide  
378-44-9, Betamethasone 382-67-2, Desoximetasone 557-04-0,  
Magnesium stearate 557-05-1, Zinc stearate 638-94-8, Desonide  
1314-13-2, Zinc oxide, biological studies 1321-10-4, Chlorocresol  
1323-39-3, Propylene glycol stearate 1338-39-2, Sorbitan  
monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan  
monooleate 1406-16-2, Vitamin D 1406-18-4, Vitamin E  
1524-88-5, Flurandrenolide 2002-29-1, Flumethasone pivalate  
2152-44-5, Betamethasone valerate 3093-35-4, Halcinonide  
4080-31-3, Quaternium-15 5534-13-4 5593-20-4, Betamethasone  
dipropionate 6677-98-1, Hydrocortisone propionate 6938-94-9,  
Diisopropyl adipate 7440-66-6, Zinc, biological studies  
7631-90-5, Sodium bisulfite 7664-38-2, Phosphoric acid, biological  
studies 7681-57-4, Sodium metabisulfite 7722-64-7, Potassium  
permanganate 7758-98-7, Copper sulfate, biological studies  
7761-88-8, Silver nitrate, biological studies 8007-43-0, Sorbitan  
sesquiolate 8011-96-9, Calamine 8050-81-5, Simethicone  
**9002-88-4**, Polyethylene 9004-53-9, Dextrin 9004-64-2,  
Hydroxypropyl cellulose 9004-82-4, Sodium laureth sulfate  
9004-95-9, Ceteth 20 9004-99-3, Polyethylene glycol monostearate  
9005-00-9, Steareth 9005-08-7, Polyethylene glycol distearate  
9005-25-8, Starch, biological studies 9005-64-5, Polysorbate 20  
9005-65-6, Polysorbate 80 9005-66-7, Polysorbate 40 9005-67-8,  
Polysorbate 60 9006-65-9, Dimethicone 9007-16-3, Carbomer 934  
9087-61-0, Aluminum starch octenylsuccinate 11099-07-3, Glyceryl  
stearate 11103-57-4, Vitamin A 11138-66-2, Xanthan gum  
12001-79-5, Vitamin K 12441-09-7D, Sorbitan, esters 13609-67-1,  
Hydrocortisone butyrate 14807-96-6, Talc, biological studies  
19045-66-0D, Thiocarbamic acid, derivs. 22298-29-9, Betamethasone  
benzoate 23593-75-1, Clotrimazole 24634-61-5, Potassium sorbate  
25013-16-5, Butylated hydroxyanisole 25122-46-7, Clobetasol  
propionate 25231-21-4, Polyoxypropylene stearyl ether  
25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol,  
fatty ethers 25496-72-4, Glyceryl monooleate 26266-57-9,  
Sorbitan monopalmitate 27306-76-9 31566-31-1, Glyceryl  
monostearate 33564-31-7, Diflorasone diacetate 34097-16-0,  
Clocortolone pivalate 36653-82-4, Cetyl alcohol 37306-44-8D,  
Triazole, derivs. 37342-64-6D, Pyridone, derivs. 51022-69-6,  
Amcinonide 57524-89-7, Hydrocortisone valerate 57916-92-4,  
Carbomer 934P 66734-13-2, Alclometasone dipropionate 66852-54-8,  
Halobetasol propionate 73771-04-7, Prednicarbate 76050-42-5,  
Carbomer 940 80474-14-2, Fluticasone propionate 83919-23-7,

Mometasone furoate 135843-95-7, Polypropylene glycol oleate  
627846-14-4 627910-32-1, Amphoteric 9  
(topical compns. contg. corticosteroids and antifungals for  
treatment of skin rashes and dermatosis and lesion)

L65 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
2003:334673 Document No. 138:339051 **Inhibiting**  
**polymer oxidation using non-**  
**phenolic antioxidants.** Wang, Qi; Nagy, Sandor  
(USA). U.S. Pat. Appl. Publ. US 2003083405 A1 20030501, 6 pp.,  
Cont.-in-part of U.S. Ser. No. 223,710. (English). CODEN: USXXCO.  
APPLICATION: US 2002-65636 20021105. PRIORITY: US 1998-223710  
19981230.

GI

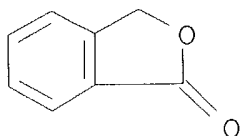


AB The oxidn. of a polymer is inhibited by adding to the polymer about  
0.005-10 phr of an **antioxidant** of I (in non-polymeric  
form) type (E is O, S, or N, R is H, R', OR', SR', OP(R')2, COR',  
each R is independently selected from R1, alkylenyl from C1 to C12 ,  
aminoalkyl from C1 to C12 , and hydroxyalkyl from C1 to C12 , R' is  
alkyl from C1 to C12 or aryl, alkylaryl, or aralkyl from C6 to C12 ,  
R' is G, GO, GS, GNH, NHG, NHGO, NHGNH, NHGS, OG, OGO, OGNH, OGS,  
where G is alkylenyl from C7 to C12, or arylalkylenyl from C7 to C12  
, m is 0 if E is O or S and is 1 if E is N, and two R groups can  
join from an alicyclic ring or an arom. ring or an R group and an R1  
group can join to form an alicyclic ring). The polymer can be PVC,  
a polycarbonate, a polyether, polyethylene, polypropylene, or a  
mixt. thereof when the **antioxidant** is not phthalide and  
can be PVC, a polycarbonate, a polyether, or a mixt. thereof when  
the **antioxidant** is phthalide.

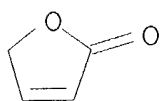
IT 87-41-2, Phthalide 497-23-4D, 2(5H)Furanone,  
derivs. 22122-36-7, 3-Methyl-2(5H)furanone  
69556-70-3, 4-Methoxy-2(5H)furanone  
(nonphenolic antioxidants for use in  
polymer compns.)

RN 87-41-2 HCAPLUS

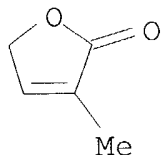
CN 1(3H)-Isobenzofuranone (9CI) (CA INDEX NAME)



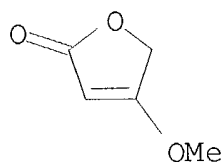
RN 497-23-4 HCAPLUS  
CN 2(5H)-Furanone (8CI, 9CI) (CA INDEX NAME)



RN 22122-36-7 HCAPLUS  
CN 2(5H)-Furanone, 3-methyl- (8CI, 9CI) (CA INDEX NAME)



RN 69556-70-3 HCAPLUS  
CN 2(5H)-Furanone, 4-methoxy- (9CI) (CA INDEX NAME)



IC ICM C08K005-00  
NCL 524081000; 524084000; 524104000; 524113000; 524116000; 524094000  
CC 37-2 (Plastics Manufacture and Processing)  
ST furanone pyrrolinone **nonphenolic antioxidant**  
**polymer** plastic compn  
IT **Antioxidants**  
(**nonphenolic antioxidants** for use in  
**polymer** compns.)  
IT Polycarbonates, uses

Polyethers, uses

(nonphenolic antioxidants for use in  
polymer compns.)

IT 87-41-2, Phthalide 497-23-4D, 2(5H)Furanone,  
derivs. 4031-15-6D, 3-Pyrrolin-2-one, derivs. 22122-36-7  
, 3-Methyl-2(5H)furanone 69556-70-3, 4-Methoxy-  
2(5H)furanone 159159-41-8D, Thiophenone, derivs. 201815-03-4,  
HP-136

(nonphenolic antioxidants for use in  
polymer compns.)

IT 9002-86-2, PVC 9002-88-4, Polyethylene 9003-07-0, Polypropylene  
(nonphenolic antioxidants for use in  
polymer compns.)

L65 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
2003:124006 Document No. 138:152602 Preservatives containing  
carbonates for fruits and vegetables. Nemoto, Yasushi; Mori,  
Hisashi; Kuwahara, Tadashi (Bridgestone Corp., Japan). Jpn. Kokai  
Tokkyo Koho JP 2003047399 A2 20030218, 8 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 2001-241031 20010808.

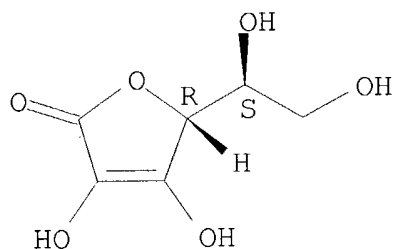
AB The preservatives comprise core particles contg. carbonates and/or  
hydrogen carbonates coated with porous polymer films. Granules  
contg. NaHCO<sub>3</sub> 65, citric acid 20, and hydroxypropyl cellulose 15 wt.  
parts were spray-coated with a suspension contg. poly(methacrylic  
acid) resin fine powder and the resulting coated particles were  
heat-treated to give porous film-coated CO<sub>2</sub>-emitting particles,  
which were supported on SF 06 (flexible polyurethane foam) with an  
acrylic binder to give a preservative. The vitamin C content of  
spinach after 4-day storage at 10.degree. in a polyethylene bag  
contg. the preservative was 55 mg/100 g-spinach, while that of a  
control stored without the preservative was 15 mg/100 g-spinach.

IT 50-81-7, Ascorbic acid, biological studies  
(preservatives contg. porous polymer  
film-coated particles contg. carbonates and acids for fruits and  
vegetables)

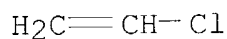
RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 9002-86-2, Poly(vinyl chloride)  
 (preservatives contg. porous polymer  
 film-coated particles contg. carbonates for fruits and  
 vegetables)  
 RN 9002-86-2 HCAPLUS  
 CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 75-01-4  
 CMF C2 H3 Cl



IC ICM A23B007-14  
 ICS A01N003-02; A23B007-16  
 CC 17-6 (Food and Feed Chemistry)  
 ST vegetable preservative carbonate porous polymer  
 coating; fruit preservative carbonate porous  
 polymethacrylate coating  
 IT Acrylic polymers, biological studies  
 (adhesive; preservatives contg. porous polymer  
 film-coated particles contg. carbonates for fruits and  
 vegetables)  
 IT Containers  
 (food, gas-permeable; preservatives contg. porous  
 polymer film-coated particles contg. carbonates for  
 fruits and vegetables)  
 IT Plastic foams  
 (polyurethane, support; preservatives contg. porous  
 polymer film-coated particles contg. carbonates for  
 fruits and vegetables)  
 IT Acids, biological studies  
 Carboxylic acids, biological studies  
 Phosphates, biological studies

- (**preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates and acids for fruits and  
vegetables)
- IT Adhesives  
Food preservatives  
(**preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates for fruits and  
vegetables)
- IT Bicarbonates  
Carbonates, biological studies  
Fluoropolymers, biological studies  
Polyamides, biological studies  
Polycarbonates, biological studies  
Polyesters, biological studies  
Polyimides, biological studies  
Polyolefins  
Polyoxymethylenes, biological studies  
Polysulfones, biological studies  
Polyurethanes, biological studies  
(**preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates for fruits and  
vegetables)
- IT Antibacterial agents  
Fungicides  
(silver, vapor-deposited on porous **polymer** film;  
**preservatives** contg. porous **polymer** film-coated  
particles contg. carbonates for fruits and vegetables)
- IT Nets  
Nonwoven fabrics  
Textiles  
(support; **preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates for fruits and  
vegetables)
- IT 496842-43-4, SF 06  
(foams, support; **preservatives** contg. porous  
**polymer** film-coated particles contg. carbonates for  
fruits and vegetables)
- IT 50-81-7, Ascorbic acid, biological studies 56-86-0,  
Glutamic acid, biological studies 57-10-3, Palmitic acid,  
biological studies 57-11-4, Stearic acid, biological studies  
65-85-0, Benzoic acid, biological studies 77-92-9, Citric acid,  
biological studies 87-69-4, Tartaric acid, biological studies  
87-73-0, Saccharic acid 107-35-7, Taurine 144-62-7, Oxalic acid,  
biological studies 6915-15-7, Malic acid 7664-38-2, Phosphoric  
acid, biological studies  
(**preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates and acids for fruits and  
vegetables)



IT 144-55-8, Sodium hydrogen carbonate, biological studies 298-14-6  
471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium  
carbonate, biological studies 546-93-0, Magnesium carbonate  
554-13-2, Lithium carbonate 584-08-7, Potassium carbonate  
**9002-86-2**, Poly(vinyl chloride) 9003-53-6, Polystyrene  
9004-34-6, Cellulose, biological studies 25087-26-7,  
Poly(methacrylic acid)

(**preservatives** contg. porous **polymer**  
film-coated particles contg. carbonates for fruits and  
vegetables)

IT 7440-22-4, Silver, biological studies  
(vapor-deposited on porous **polymer** film;  
**preservatives** contg. porous **polymer** film-coated  
particles contg. carbonates for fruits and vegetables)

L65 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:117625 Document No. 138:142519 Transdermal therapeutic system  
(reservoir-TTS) for using pramipexole and ropinirole. Beier,  
Cornelia; Wilhelm, Martina (Hexal AG, Germany). PCT Int. Appl. WO  
2003011291 A1 20030213, 28 pp. DESIGNATED STATES: W: AE, AG, AL,  
AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ,  
DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,  
SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY,  
DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT,  
SE, SN, TD, TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO  
2002-EP8393 20020726. PRIORITY: DE 2001-10137162 20010730.

AB The invention relates to a transdermal therapeutic system contg. an  
active ingredient comprising a reservoir for administering  
pramipexole, ropinirole and pharmaceutically safe salts or deriv.  
thereof. Thus a drug soln. was prepd. that contained (g):  
pramipexole 4.5; ethanol abs. 15.3; propylene glycol 4.59; Klucel HF  
0.25. 2 ML of the soln. was filled into the pocket of a laminated  
foil; the opening was sealed by welding. The laminated foil was  
composed of a microporous polyethylene membrane with Durotak 87-4098  
adhesive layer, a cover layer and an aluminum coated polyester foil  
that contained a polyolefin layer for hot welding.

IT **9002-88-4**, Polyethylene  
(transdermal therapeutic system (reservoir-TTS) for using  
pramipexole and ropinirole)

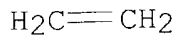
RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

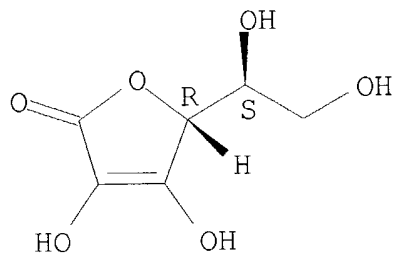
CRN 74-85-1

CMF C2 H4



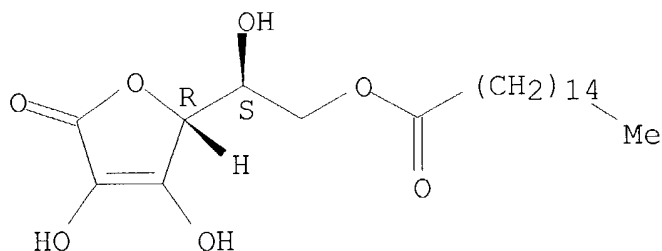
IT 50-81-7, L-Ascorbic acid, biological studies  
 137-66-6, Ascorbylpalmitate  
 (transdermal therapeutic system (reservoir-TTS) for using  
 pramipexole and ropinirole)  
 RN 50-81-7 HCAPLUS  
 CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 137-66-6 HCAPLUS  
 CN L-Ascorbic acid, 6-hexadecanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K031-428  
 ICS A61K031-4015; A61K009-70  
 CC 63-6 (Pharmaceuticals)  
 IT Adhesives  
**Antioxidants**  
 Antiparkinsonian agents  
 Emulsifying agents  
 Lamination

Permeation enhancers

**Preservatives**

Solubilizers

**Stabilizing agents**

Thickening agents

Welding of plastics

(transdermal therapeutic system (reservoir-TTS) for using  
pramipexole and ropinirole)

IT **9002-88-4**, Polyethylene 25067-02-1, Duro-Tak 87-4098  
91374-21-9, Ropinirole 104632-25-9, Pramipexole dihydrochloride  
104632-26-0, Pramipexole

(transdermal therapeutic system (reservoir-TTS) for using  
pramipexole and ropinirole)

IT **50-81-7**, L-Ascorbic acid, biological studies 57-55-6,  
Propylene glycol, biological studies 64-17-5, Ethanol, biological  
studies 110-27-0, Isopropylmyristate 128-37-0, biological  
studies **137-66-6**, Ascorbylpalmitate 139-33-3 994-36-5,  
Sodium citrate 1406-18-4, Vitamin E 7778-49-6, Potassium citrate  
25013-16-5, Butylhydroxyanisole 91374-21-9D, Ropinirole, salts and  
derivs. 104632-26-0D, Pramipexole, salts and derivs.

(transdermal therapeutic system (reservoir-TTS) for using  
pramipexole and ropinirole)

L65 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:902214 Document No. 138:1668 Purification and characterization of  
an autoclavable superoxide dismutase (SOD) isozyme from *Potentilla*  
*atrosanguinea*, and use of the SOD in cosmetic, food and  
pharmaceutical compositions. Kumar, Sanjay; Sahoo, Rashmita; Ahuja,  
Paramvir Singh (Council of Scientific & Industrial Research (CSIR),  
India). U.S. US 6485950 B1 20021126, 30 pp. (English). CODEN:  
USXXAM. APPLICATION: US 2000-617118 20000714.

AB The invention relates to a novel purified isoenzyme of an  
autoclavable superoxide dismutase extd. from the plant *Potentilla*  
*atrosanguinea* Lodd. variety *argyrophylla*. The superoxide dismutase  
has the following characteristics: O<sub>2</sub>-scavenging activity remains  
same before and after autoclaving; scavenges O<sub>2</sub>- from sub-zero temp.  
of -20.degree. C. to high temp. of +80.degree.; O<sub>2</sub>- scavenging  
activity at 25.degree. for 30 days without adding any  
**stabilizing** agent such as polyols or sugars; O<sub>2</sub>- scavenging  
activity in the presence of saline (0.9% sodium chloride) to 61.8%  
of the control (without 0.9% sodium chloride), **stable** at  
4.degree. for at least 8 mo; contamination free and infection free  
from any living micro- and/or macro-organism after autoclaving. The  
enzyme possesses temp. optima at 0.degree.; possesses a mol. wt. of  
33 kD under non-denaturing conditions; possesses a mol. wt. of 36  
kD under denaturing conditions; has clear peaks in UV range at 268  
and 275 nm; has an enzyme turnover no. of 19.53.times.104% per nmol  
per min at 0.degree.; and requires Cu/Zn as a co-factor. The

invention also relates to a process for the extn. of the superoxide dismutase and its use in prepg. cosmetic, pharmaceutical and food compns. The method for the prepn. of the purified isoenzyme of autoclavable superoxide dismutase and formulations contg. the said autoclavable superoxide dismutase are disclosed.

IT 50-81-7, Vitamin C, biological studies 77-09-8,

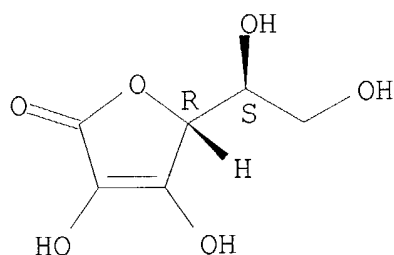
Phenolphthalein

(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

RN 50-81-7 HCAPLUS

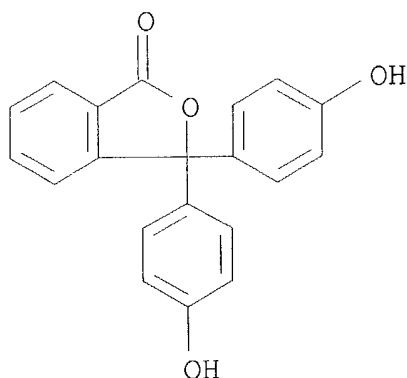
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 77-09-8 HCAPLUS

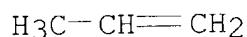
CN 1(3H)-Isobenzofuranone, 3,3-bis(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



IT 9003-07-0, Polypropylene

(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and

pharmaceutical compns.)  
RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 115-07-1  
CMF C3 H6



IC ICM C12N009-02  
ICS C12N009-00; A61K038-44  
NCL 435189000; 435183000; 424094400  
CC 7-2 (Enzymes)  
Section cross-reference(s): 17, 62, 63  
IT Amphiphiles  
Analgesics  
Anti-inflammatory agents  
Antibacterial agents  
Antibiotics  
Antimicrobial agents  
**Antioxidants**  
Beeswax  
Carriers  
Coloring materials  
Emulsifying agents  
Feed additives  
Flavoring materials  
Hemostatics  
Perfumes  
**Preservatives**  
Radical scavengers  
Surfactants  
Vaccines  
(compns. contg.; purifn. and characterization of autoclavable  
superoxide dismutase (SOD) isoenzyme from Potentilla  
atrosanguinea, and use of SOD in cosmetic, food and  
pharmaceutical compns.)  
IT Aerosols  
Buffers  
Cosmetics  
Dental materials and appliances  
Dentifrices  
Deodorants  
Dialysis

Drug delivery systems

Drugs

Food additives

Gums and Mucilages

HPLC

Hair preparations

Homogenization

Ion exchange chromatography

Leaf

Potentilla

Potentilla argyrophylla atrosanguinea

Precipitation (chemical)

Shampoos

Solutions

Sprays

### Stability

Sunscreens

Tablets

Thermal stability

(purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

- IT 50-70-4D, Sorbitol, esters 50-81-7, Vitamin C, biological studies 52-90-4, L-Cysteine, biological studies 57-10-3, Palmitic acid, biological studies 57-10-3D, Palmitic acid, glycerides 57-11-4, Stearic acid, biological studies 57-41-0, Phenytoin 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 58-08-2, Caffeine, biological studies 58-95-7, Tocopherol acetate 59-02-9, .alpha.-Tocopherol 60-33-3, Linoleic acid, biological studies 60-33-3D, Linoleic acid, glycerides 62-53-3, Aniline, biological studies 63-42-3, Lactose 63-68-3, L-Methionine, biological studies 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Reduced glutathione, biological studies 71-23-8, Propanol, biological studies 71-36-3, Butanol, biological studies 74-79-3, L-Arginine, biological studies 77-09-8, Phenolphthalein 87-99-0, Xylitol 90-05-1, Guaiacol 106-69-4, 1,2,6-Hexanetriol 107-21-1, Ethylene glycol, biological studies 107-35-7, Taurine 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate 110-36-1, Butyl myristate 112-53-8, Lauryl alcohol 112-72-1, Myristyl alcohol 112-80-1, Oleic acid, biological studies 112-80-1D, Oleic acid, glycerides 112-85-6, Behenic acid 112-86-7, Erucic acid 112-92-5, Stearyl alcohol 122-99-6, Phenoxyethanol 124-07-2D, Caprylic acid, glycerides 124-07-2D, Octanoic acid, hydroxylated polyisobutenyl derivs. 127-17-3, biological studies 127-82-2, Zinc phenol sulfonate 128-44-9, Sodium saccharinate 141-22-0,

Ricinoleic acid 142-91-6, Isopropyl palmitate 143-07-7, Lauric acid, biological studies 143-07-7D, Lauric acid, glycerides 143-28-2, Oleyl alcohol 302-04-5, Thiocyanate, biological studies 334-48-5D, Capric acid, glycerides 364-98-7, Diazoxide 404-86-4, Capsaicin 463-40-1, Linolenic acid 463-40-1D, Linolenic acid, glycerides 506-30-9, Arachidic acid 526-84-1, Dihydroxymaleic acid 527-60-6, Mesitol 538-23-8, Octanoic acid triglyceride 540-11-4, Ricinoleyl alcohol 544-63-8, Myristic acid, biological studies 544-63-8D, Myristic acid, alkyl esters 544-63-8D, Myristic acid, glycerides 546-46-3, Zinc citrate 553-72-0, Zinc benzoate 557-34-6, Zinc acetate 585-86-4, Lactitol 616-91-1, N-Acetyl-L-cysteine 621-71-6 628-97-7, Ethyl palmitate 629-98-1, Erucyl alcohol 661-19-8, Behenyl alcohol 1300-26-1, Zinc glycerophosphate 1314-13-2, Zinc oxide, biological studies 1314-22-3, Zinc peroxide 1330-70-7, Hydroxystearic acid 1332-07-6, Zinc borate 1406-18-4, Vitamin E 1464-42-2, Selenomethionine 2599-01-1, Cetyl myristate 2724-58-5, Isostearic acid 2814-60-0 3068-00-6, 1,2,4-Butanetriol 3460-37-5, Hexyl stearate 3486-35-9, Zinc carbonate 3614-08-2, Selenocysteine 4345-03-3 4468-02-4, Zinc gluconate 5333-42-6, 2-Octyl-dodecanol 7235-40-7, .beta.-Carotene 7631-86-9, Silica, biological studies 7646-85-7, Zinc chloride, biological studies 7681-49-4, Sodium fluoride, biological studies 7699-45-8, Zinc bromide 7733-02-0, Zinc sulfate 7779-88-6, Zinc nitrate 7782-49-2, Selenium, biological studies 9001-48-3, Glutathione reductase 9003-20-7, Polyvinyl acetate 9003-99-0, Peroxidase 9004-61-9, Hyaluronic acid 9005-00-9, Steareth-2 9005-63-4D, Polyoxyethylenesorbitan, fatty acid esters 9007-43-6, Cytochrome c, biological studies 9013-66-5, Glutathione peroxidase 10191-41-0, DL-.alpha.-Tocopherol 10401-55-5, Cetyl ricinoleate 11103-57-4, Vitamin A 11126-29-7, Zinc silicate 12441-09-7D, Sorbitan, fatty acid esters 12651-25-1, Zinc titanate 13463-41-7, Zinc pyrithione 13826-88-5, Zinc tetrafluoroborate 14281-83-5, Zinc glycinate 16283-36-6, Zinc salicylate 16871-71-9, Zinc hexafluorosilicate 16887-00-6, Chloride, biological studies 16984-48-8, Fluoride, biological studies 18312-31-7, Stearyl octanoate 20461-54-5, Iodide, biological studies 24959-67-9, Bromide, biological studies 25231-21-4, Polypropylene glycol stearyl ether 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 25618-55-7D, Polyglycerin, fatty acid esters 26281-43-6, 3,5-Dichloro-2-hydroxybenzenesulfonic acid 27458-93-1, Isostearyl alcohol 32797-18-5, 1,3-Butadien-1-ol 36653-82-4, Hexadecyl alcohol 38304-91-5, Minoxidil 39467-17-9, Zinc stannate 51744-92-4, .alpha.-Tocopheryl linoleate 52225-20-4 52296-98-7, Octadecanediol 71276-50-1, .alpha.-Tocopherol phosphate 77752-14-8, Purcellin oil 476494-41-4

(compns. contg.; purifn. and characterization of autoclavable

superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

- IT 67-66-3, Chloroform, biological studies 9003-01-4, Polyacrylic acid 9003-07-0, Polypropylene 9004-57-3, Ethyl cellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8D, Starch, derivs  
(compns. contg.; purifn. and characterization of autoclavable superoxide dismutase (SOD) isoenzyme from *Potentilla atrosanguinea*, and use of SOD in cosmetic, food and pharmaceutical compns.)

L65 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:539496 Document No. 137:114228 Cosmetic and/or dermatological acid composition containing an amphiphilic polymer. Lorant, Raluca; Lennon, Paula (L'Oreal, Fr.). PCT Int. Appl. WO 2002055039 A1 20020718, 47 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (French). CODEN: PIXXD2. APPLICATION: WO 2002-FR47 20020108. PRIORITY: FR 2001-336 20010111.

- AB The invention relates to a cosmetic and/or dermatol. compn. contg. an acid aq. medium and at least one amphiphilic polymer comprising at least one monomer having ethylenic unsatn. with a sulfonic group, in free form or partially or totally neutralized, and comprising at least one hydrophobic part. The invention also relates to a use for said compn. involving the cosmetic treatment of and/or application of make-up to keratinous matter, in particular the skin, hair and mucous membranes of the skin. The invention also relates to the use of an amphiphilic polymer comprising at least one monomer having ethylenic unsatn. with a sulfonic group, in free form or partially or totally neutralized, and comprising at least one hydrophobic part, in order to **stabilize** a cosmetic or dermatol. compn. contg. at least one acid active ingredient and/or having a pH less than or equal to 5. A polymer was obtained by polymn. of Genapol T-250 methacrylate 10, 2-acrylamido-2-methylpropane sulfonic acid neutralized by ammonia 90, trimethylol propane triacrylate 1.8, dilauryl peroxide 1, and tert-butanol 300 g. An cosmetic cream contained above polymer 2, mineral oil 5, cyclohexasiloxane 5, a mixt. of fruit acids 1, triethanolamine q.s. pH = 3.5, **preservatives**, and water q.s. 100 g.

- IT 50-81-7, Ascorbic acid, biological studies

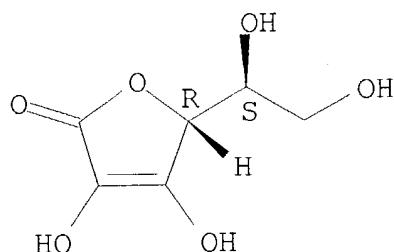


(cosmetic and/or dermatol. acid compn. contg. amphiphilic polymer)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K007-06

ICS A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 38

IT Antibacterial agents

**Antioxidants**

Dyes

Emulsifying agents

Gelation agents

Hair preparations

Insecticides

Perfumes

Pigments, nonbiological

**Preservatives**

Sequestering agents

Sunscreens

Surfactants

Thickening agents

(cosmetic and/or dermatol. acid compn. contg. amphiphilic polymer)

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 65-85-0, Benzoic acid, biological studies 69-72-7, Salicylic acid, biological studies 69-72-7D, Salicylic acid, derivs. 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 80-69-3, Tartronic acid 90-64-2, Mandelic acid 110-17-8, Fumaric acid, biological studies 127-17-3, Pyruvic acid, biological studies 295-01-2, Cyclohexasiloxane 302-79-4, Retinoic acid 302-79-4D, Retinoic acid, derivs. 331-39-5 464-92-6, Asiatic acid 501-30-4, Kojic acid 526-83-0, Tartaric acid 526-95-4, Gluconic acid 544-57-0, 2-Hydroxytetracosanoic acid 547-64-8, Methylactate 600-15-7,

2-Hydroxybutanoic acid 617-31-2, 2-Hydroxypentanoic acid  
617-73-2, 2-Hydroxyoctanoic acid 629-22-1, 2-Hydroxyoctadecanoic  
acid 636-69-1, 2-Hydroxyheptanoic acid 685-73-4, Galacturonic  
acid 764-67-0, 2-Hydroxyhexadecanoic acid 828-01-3 1449-05-4,  
.beta.-Glycyrrhetic acid 2507-55-3, 2-Hydroxytetradecanoic acid  
2984-55-6, 2-Hydroxydodecanoic acid 4741-30-4D, Carbonodithioic  
acid, O-esters 5393-81-7, 2-Hydroxydecanoic acid 6064-63-7,  
2-Hydroxyhexanoic acid 6556-12-3, Glucuronic acid 6915-15-7,  
Malic acid 6949-98-0, Aleuritic acid 15896-36-3,  
2-Hydroxynonanoic acid 16742-48-6, 2-Hydroxyeicosanoic acid  
17812-24-7, Ribonic acid 19790-86-4, 2-Hydroxyundecanoic acid  
27503-81-7, 2-Phenylbenzimidazole 5-sulfonic acid 56039-58-8  
92761-26-7

(cosmetic and/or dermatol. acid compn. contg. amphiphilic  
polymer)

L65 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:663438 Document No. 133:256558 Water-containing preparation for  
pencil-type cosmetics. (Schwan-Stabilo Cosmetics GmbH & Co.,  
Germany). Ger. Gebrauchsmusterschrift DE 20009445 U1 20000921, 23  
pp. (German). CODEN: GGXXFR. APPLICATION: DE 2000-20009445  
20000525.

AB A cosmetic prepn. is characterized by: (a) a fat phase contg. at  
least one oil component, at least one wax component, at least one  
paraffin component, and optionally other fat-compatible substances;  
(b) an aq. phase contg. 1-25% water and optionally other  
water-compatible substances; (c) at least one biopolymer; (d) at  
least one w/o emulsifying agent or a mixt. of w/o emulsifying  
agents; (e) at least one further active substance suitable for use  
in pencil-like cosmetics; and (f) supplementary surface-active  
substances as co-emulsifying agents, in addn. to other normal  
constituents such as **stabilizers** and other additives.  
Thus, a compn. for a lip- or eye-contouring pencil may contain  
polyethylene 2, polybutene 10, ceresin 12, paraffin 5, candelilla  
wax 4, microcryst. wax 5, Buxus chinensis 15, caprylic capric  
triglyceride 8, hydrogenated coconut oil 10, and PEG-30  
dipolyhydroxystearate 4.5%, plus other minor constituents and water.

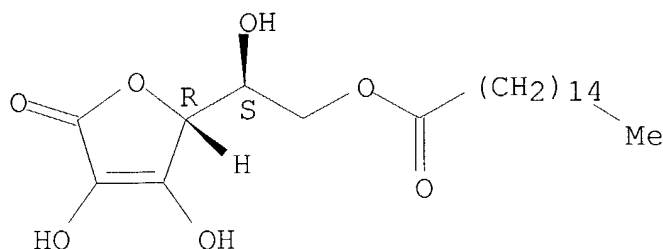
IT 137-66-6, Ascorbyl palmitate 9002-88-4

(water-contg. prepn. for pencil-type cosmetics)

RN 137-66-6 HCAPLUS

CN L-Ascorbic acid, 6-hexadecanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1  
 CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

IC ICM A61K007-00  
 ICS A61K007-027; A61K007-031; A61K007-032; A61K007-40  
 CC 62-4 (Essential Oils and Cosmetics)  
 IT Acne

#### Antioxidants

Beeswax  
 Cosmetics  
 Emulsifying agents  
 Jojoba (*Simmondsia chinensis*)  
 Ozocerite  
 Perfumes

#### Preservatives

Sunscreens

(water-contg. prepn. for pencil-type cosmetics)

IT 103-23-1, Di(ethylhexyl)adipate 110-27-0, Isopropyl myristate  
 123-95-5, Butyl stearate 137-66-6, Ascorbyl palmitate  
 142-91-6, Isopropyl palmitate 540-10-3, Cetyl palmitate  
 3687-45-4, Oleyl oleate 3687-46-5, Decyl oleate 6938-94-9,  
 Diisopropyl adipate 9002-18-0, Agar-agar 9002-88-4  
 9003-29-6, Polybutene 9004-32-4, Carboxymethylcellulose  
 9004-57-3, Ethyl cellulose 9004-62-0, Hydroxyethylcellulose  
 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid  
 9006-65-9, Dimethicone 9036-66-2, Galactoarabinan 9062-07-1,  
 .iota.-Carrageenan 11114-20-8, .kappa.-Carrageenan 11138-66-2,  
 Xanthan 22047-49-0, 2-Ethylhexyl stearate 31807-55-3,

Isododecane 34316-64-8, Hexyl laurate 34464-38-5, Isodecane  
34464-43-2, Isoundecane 41669-30-1, Isostearylisostearate  
65381-09-1, Caprylic capric triglyceride 71010-52-1, Gellan gum  
81897-25-8, 2-Ethylhexyl isostearate 195868-36-1,  
Phenyltrimethicone  
(water-contg. prepn. for pencil-type cosmetics)

L65 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
2000:259972 Document No. 132:293042 Encapsulation of sensitive liquid  
components into a matrix to obtain discrete shelf-stable  
particles. Van Lengerich, Bernhard H. (General Mills, Inc., USA).  
PCT Int. Appl. WO 2000021504 A1 20000420, 56 pp. DESIGNATED STATES:  
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,  
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,  
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,  
UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM;  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA,  
GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.  
(English). CODEN: PIXXD2. APPLICATION: WO 1999-US20905 19991006.  
PRIORITY: US 1998-PV103700 19981009; US 1998-PV109696 19981124; US  
1999-233443 19990120.

AB A liq. encapsulant component which contains an active, sensitive  
encapsulant, such as a live microorganism or an enzyme dissolved or  
dispersed in a liq. plasticizer is admixed with a plasticizable  
matrix material. The matrix material is plasticizable by the liq.  
plasticizer and the encapsulation of the active encapsulant is  
accomplished at a low temp. and under low shear conditions. The  
active component is encapsulated and/or embedded in the  
plasticizable matrix component or material in a continuous process  
to produce discrete, solid particles. The liq. content of the liq.  
encapsulant component provides substantially all or completely all  
of the liq. plasticizer needed to plasticize the matrix component to  
obtain a formable, extrudable, cuttable, mixt. or dough. Removal of  
liq. plasticizer prior to extrusion is not needed to adjust the  
viscosity of the mixt. for formability. Release of an active  
component from the matrix may be delayed or controlled over time so  
that the active component is delivered when and where it is needed  
to perform its intended function. Controlled release, discrete,  
solid particles which contain an encapsulated and/or embedded  
component such as a heat sensitive or readily oxidizable  
pharmaceutically, biol., or nutritionally active component are  
continuously produced without substantial destruction of the matrix  
material or encapsulant.

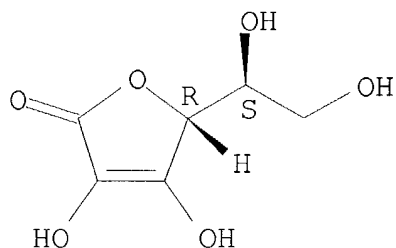
IT 50-81-7, L-Ascorbic acid, biological studies 71-63-6  
, Digitoxin 77-09-8 128-62-1, Noscapine  
5355-48-6 9002-86-2, Polyvinyl chloride  
20830-75-5, Digoxin 30685-43-9, Metildigoxin

(encapsulation of sensitive liq. components into matrix to obtain discrete shelf-~~stable~~ particles)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

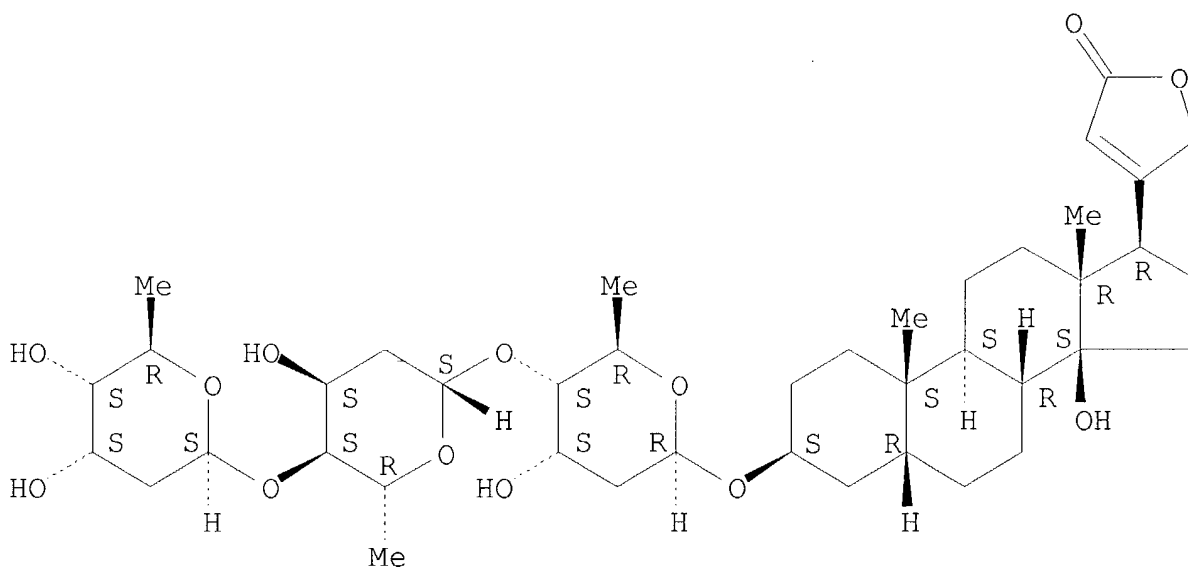
Absolute stereochemistry.



RN 71-63-6 HCAPLUS

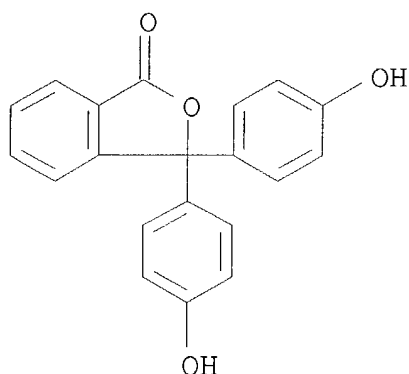
CN Card-20(22)-enolide, 3-[(O-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-O-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl)oxy]-14-hydroxy-, (3.beta.,5.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 77-09-8 HCAPLUS

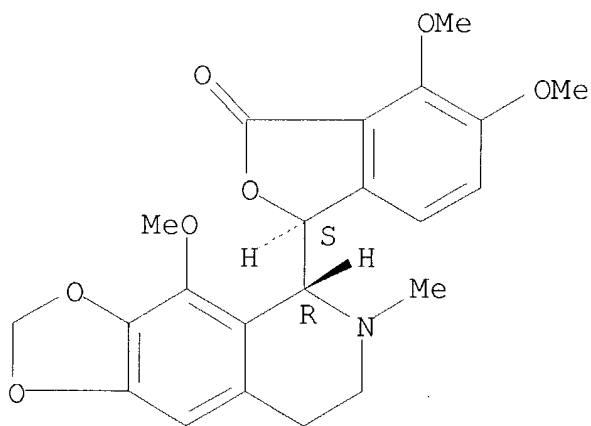
CN 1(3H)-Isobenzofuranone, 3,3-bis(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 128-62-1 HCAPLUS

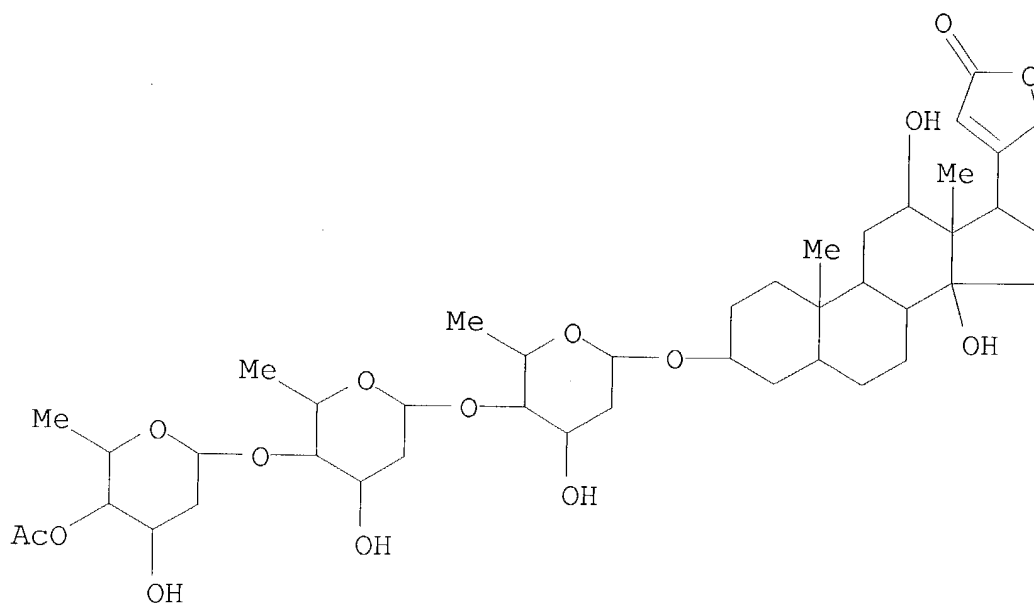
CN 1(3H)-Isobenzofuranone, 6,7-dimethoxy-3-[(5R)-5,6,7,8-tetrahydro-4-methoxy-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl]-, (3S)-(9CI)  
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 5355-48-6 HCAPLUS

CN Card-20(22)-enolide, 3-[(0-4-O-acetyl-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-O-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl)oxy]-12,14-dihydroxy-, (3.beta.,5.beta.,12.beta.)-(9CI) (CA INDEX NAME)



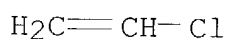
RN 9002-86-2 HCAPLUS

CN Ethene, chloro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 75-01-4

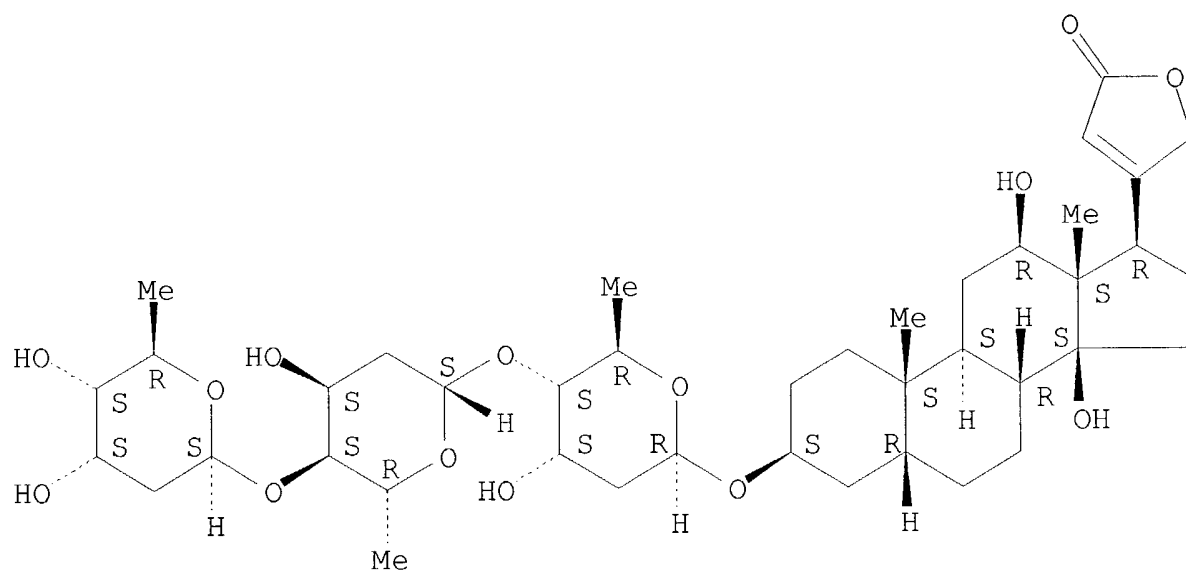
CMF C2 H3 C1



RN 20830-75-5 HCAPLUS

CN Card-20(22)-enolide, 3-[(O-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-O-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl-(1.fwdarw.4)-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl)oxy]-12,14-dihydroxy-, (3.beta.,5.beta.,12.beta.)- (9CI) (CA INDEX NAME)

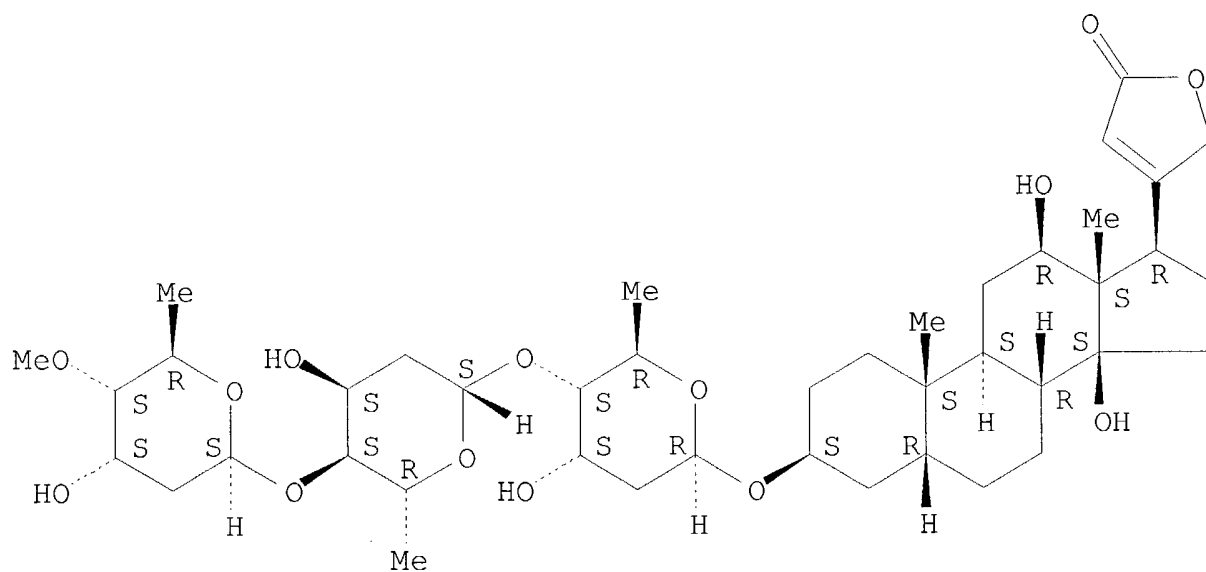
Absolute stereochemistry.



RN 30685-43-9 HCAPLUS

CN Card-20(22)-enolide, 3-[(O-2,6-dideoxy-4-O-methyl-.beta.-D-ribohexopyranosyl-(1.fwdarw.4)-O-2,6-dideoxy-.beta.-D-ribohexopyranosyl-(1.fwdarw.4)-2,6-dideoxy-.beta.-D-ribohexopyranosyl)oxy]-12,14-dihydroxy-, (3.beta.,5.beta.,12.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K009-10



CC 17-13 (Food and Feed Chemistry)  
Section cross-reference(s): 63

ST encapsulation food liq component matrix **preservation**

IT Polymers, biological studies  
(amphiphilic; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Nitro compounds  
Nitro compounds  
Nitroso compounds  
(arom.; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Antitoxins  
(botulism; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Bakery products  
(cakes; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Natural products, pharmaceutical  
(cascara sagrada; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Temperature effects, biological  
(cold; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Bakery products  
(cookies; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Bakery products  
(crackers; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Puddings  
(custard; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Natural products, pharmaceutical  
(digitalis; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Toxins  
(diphtheria, antitoxins; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Antibiotics  
**Antioxidants**  
Antitumor agents  
Antivenoms  
Antiviral agents  
Beverages  
Cholera  
Detergents  
Dough

Drug delivery systems  
Durum wheat  
Emulsifying agents  
Encapsulation  
Flavor  
Flavoring materials  
Food additives  
Food functional properties  
Food **preservation**  
Food viscoelasticity  
Food viscosity  
Health food  
Hepatitis virus  
Human poliovirus  
Hydrocolloids  
Ice cream  
Lactobacillus acidophilus  
Microorganism  
Pertussis  
Pigments, biological  
Plasticizers  
Puddings  
Rauvolfia serpentina  
Soups  
Surfactants  
Thyroid gland  
Vaccines  
Virus  
Wheat flour

(encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Edible oils

(encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)

IT Amino acids, biological studies

Castor oil

Cod liver oil

Dipeptides

Enzymes, biological studies

Estrogens

Fats and Glyceridic oils, biological studies

Glucocorticoids

Glutens

Hormones, plant

Lanolin

Mineral elements, biological studies

Paraffin waxes, biological studies

Pentosans

Peptides, biological studies  
Phospholipids, biological studies  
Polyolefins  
Polyurethanes, biological studies  
Pumice  
Steroids, biological studies  
Tetracyclines  
Trace elements, biological studies  
Tuberculin  
Vitamins  
    (encapsulation of sensitive liq. components into matrix to obtain  
    discrete shelf-**stable** particles)  
IT Fatty acids, biological studies  
    (essential; encapsulation of sensitive liq. components into  
    matrix to obtain discrete shelf-**stable** particles)  
IT Belladonna (Atropa belladonna)  
Chrysanthemum  
    (ext.; encapsulation of sensitive liq. components into matrix to  
    obtain discrete shelf-**stable** particles)  
IT Microorganism  
    (food; encapsulation of sensitive liq. components into matrix to  
    obtain discrete shelf-**stable** particles)  
IT Temperature effects, biological  
    (heat; encapsulation of sensitive liq. components into matrix to  
    obtain discrete shelf-**stable** particles)  
IT Food  
    (infant; encapsulation of sensitive liq. components into matrix  
    to obtain discrete shelf-**stable** particles)  
IT Natural products, pharmaceutical  
    (ipecac; encapsulation of sensitive liq. components into matrix  
    to obtain discrete shelf-**stable** particles)  
IT Carbohydrates, biological studies  
    (low-mol. wt.; encapsulation of sensitive liq. components into  
    matrix to obtain discrete shelf-**stable** particles)  
IT Nutrients  
    (micronutrients; encapsulation of sensitive liq. components into  
    matrix to obtain discrete shelf-**stable** particles)  
IT Antibodies  
    (monoclonal; encapsulation of sensitive liq. components into  
    matrix to obtain discrete shelf-**stable** particles)  
IT Aromatic compounds  
Aromatic compounds  
    (nitro; encapsulation of sensitive liq. components into matrix to  
    obtain discrete shelf-**stable** particles)  
IT Peptides, biological studies  
    (oligopeptides; encapsulation of sensitive liq. components into  
    matrix to obtain discrete shelf-**stable** particles)  
IT Natural products, pharmaceutical

- (opium; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Mucopolysaccharides, biological studies  
(polysulfate; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Breakfast cereal  
(ready-to-eat; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Food  
(salads; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Durum wheat  
(semolina; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Food  
(snack; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Food  
(sports bars; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Tannins  
(sulfated; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Carboxylic acids, biological studies  
(thiocarboxylic; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Fatty acids, biological studies  
(unsatd.; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Measles virus  
Rabies  
Rubella virus  
(vaccine; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Fever and Hyperthermia  
(yellow, vaccine; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT Milk preparations  
(yogurt; encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT 9005-25-8D, Starch, hydrolyzates  
(encapsulation of sensitive liq. components into matrix to obtain discrete shelf-**stable** particles)
- IT 50-02-2, Dexamethasone 50-04-4, Cortisone acetate 50-06-6,  
Phenobarbital, biological studies 50-09-9 50-12-4, Mephentyoin  
50-14-6, Ergocalciferol 50-18-0, Cyclophosphamide 50-23-7,  
Hydrocortisone 50-24-8, Prednisolone 50-27-1, Estriol 50-28-2,  
Estradiol, biological studies 50-33-9, Phenylbutazone, biological

studies 50-36-2, Cocaine 50-41-9, Clomiphene citrate 50-44-2, Mercaptopurine 50-47-5, Desipramine 50-48-6, Amitriptylin 50-49-7 50-52-2, Thioridazine 50-53-3, Chlorpromazine, biological studies 50-54-4, Quinidine sulfate 50-55-5, Reserpine 50-58-8, Phendimetrazine tartrate 50-63-5, Chloroquine phosphate 50-78-2, Aspirin **50-81-7**, L-Ascorbic acid, biological studies 50-96-4, Isoetharine hydrochloride 51-05-8, Procaine hydrochloride 51-15-0, Pralidoxime chloride 51-21-8, Fluorouracil 51-30-9, Isoproterenol hydrochloride 51-34-3, Scopolamine 51-43-4, Epinephrine 51-48-9, Levothyroxine, biological studies 51-52-5, Propyl thiouracil 51-55-8, Atropine, biological studies 51-57-0, Methamphetamine hydrochloride 51-64-9, Dextroamphetamine 51-74-1, Histamine phosphate 51-83-2, Carbachol 51-84-3, Acetylcholine, biological studies 51-98-9, Norethindrone acetate 52-01-7, Spironolactone 52-24-4, Thiotepa 52-49-3, Trihexyphenidyl hydrochloride 52-53-9, Verapamil 52-67-5, Penicillamine 52-68-6, Trichlorfon 52-86-8, Haloperidol 52-89-1, L-Cysteine hydrochloride 53-03-2, Prednisone 53-16-7, Estrone, biological studies 53-19-0, Mitotane 53-39-4, Oxandrolone 53-60-1, Promazine hydrochloride 53-86-1, Indomethacin 54-21-7, Sodium salicylate 54-31-9, Furosemide 54-36-4, Metyrapone 54-47-7, Pyridoxal phosphate 54-64-8, Thimerosal 54-85-3, Isoniazid 55-03-8, Levothyroxine sodium 55-06-1, Liothyronine sodium 55-63-0, Nitroglycerin 55-98-1, Busulfan 56-47-3, Deoxycorticosterone acetate 56-53-1, Diethylstilbestrol 56-54-2 56-75-7, Chloramphenicol 56-84-8, L-Aspartic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 57-13-6, Urea, biological studies 57-22-7, Vincristine 57-33-0, Pentobarbital sodium 57-41-0, Phenytoin 57-42-1, Meperidine 57-43-2, Amobarbital 57-47-6, Physostigmine 57-53-4, Meproamate 57-63-6, Ethinyl estradiol 57-66-9, Probenecid 57-68-1, Sulfamethazine 57-83-0, Progesterone, biological studies 57-92-1, biological studies 57-96-5, Sulfinpyrazone 58-00-4, Apomorphine 58-08-2, Caffeine, biological studies 58-14-0, Pyrimethamine 58-18-4, Methyltestosterone 58-22-0, Testosterone 58-25-3, Chlordiazepoxide 58-27-5, Menadione 58-32-2, Dipyridamole 58-33-3, Promethazine hydrochloride 58-38-8, Prochlorperazine 58-39-9, Perphenazine 58-40-2, Promazine 58-54-8, Ethacrynic acid 58-55-9, Theophylline, biological studies 58-56-0, Pyridoxine hydrochloride 58-61-7D, Adenosine, derivs. 58-85-5 58-89-9, Lindane 58-93-5, Hydrochlorothiazide 58-94-6, Chlorothiazide 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies 59-33-6, Pyrilamine maleate 59-43-8, Thiamin, biological studies 59-52-9, Dimercaprol 59-63-2, Isocarboxazid 59-66-5, Acetazolamide 59-67-6, Niacin, biological studies 59-92-7, Levodopa, biological studies 60-13-9, Amphetamine sulfate 60-18-4, L-Tyrosine, biological studies 60-56-0, Methimazole

60-80-0, Antipyrine 60-87-7, Promethazine 60-99-1,  
Levomepromazine 61-00-7, Acepromazine 61-25-6, Papaverine  
hydrochloride 61-68-7, Mefenamic acid 61-76-7, Phenylephrine  
hydrochloride 61-90-5, L-Leucine, biological studies 62-31-7,  
Dopamine hydrochloride 62-44-2, Phenacetin 62-67-9, Nalorphine  
62-90-8, Nandrolone phenpropionate 63-68-3, Methionine, biological  
studies 63-91-2, L-Phenylalanine, biological studies 63-92-3,  
Phenoxybenzamine hydrochloride 63-98-9, Phenacemide 64-31-3,  
Morphine sulfate 64-72-2, Chlortetracycline hydrochloride  
64-77-7, Tolbutamide 64-86-8, Colchicine 65-45-2, Salicylamide  
66-76-2, Dicoumarol 67-03-8, Thiamine hydrochloride 67-20-9,  
Nitrofurantoin 67-45-8, Furazolidone 67-73-2, Fluocinolone  
acetone 67-96-9, Dihydrotachysterol 67-97-0, Cholecalciferol  
68-19-9, Cyanocobalamin 68-22-4, Norethindrone 68-35-9,  
Sulfadiazine 68-41-7, Cycloserine 68-89-3, Metamizole 69-23-8,  
Fluphenazine 69-44-3, Amodiaquine hydrochloride 69-53-4,  
Ampicillin 69-72-7, Salicylic acid, biological studies 71-00-1,  
L-Histidine, biological studies 71-58-9, Medroxyprogesterone  
acetate 71-63-6, Digitoxin 71-68-1, Hydromorphone  
hydrochloride 71-81-8, Isopropamide iodide 72-14-0,  
Sulfathiazole 72-17-3 72-18-4, L-Valine, biological studies  
72-19-5, L-Threonine, biological studies 72-33-3, Mestranol  
72-63-9, Methandrostenolone 73-22-3, L-Tryptophan, biological  
studies 73-48-3, Bendroflumethiazide 76-38-0, Methoxyflurane  
76-42-6, Oxycodone 76-43-7, Fluoxymesterone 76-57-3, Codeine  
77-09-8 77-19-0, Dicyclomine 77-21-4, Glutethimide  
77-26-9, Butalbital 77-27-0, Thiamylal 77-36-1, Chlorthalidone  
77-41-8, Methsuximide 78-11-5, Pentaerythritol tetranitrate  
78-44-4, Carisoprodol 79-57-2, Oxytetracycline 80-08-0  
80-13-7, Halazone 80-53-5, Terpin 81-07-2, Saccharin 81-13-0,  
Dexpanthenol 81-23-2, Dehydrocholic acid 81-81-2, Warfarin  
83-43-2 83-73-8, Iodoquinol 83-88-5, Riboflavin, biological  
studies 84-02-6, Prochlorperazine maleate 84-17-3, Dienestrol  
84-80-0, Phytonadione 85-79-0, Dibucaine 86-35-1, Ethotoin  
87-00-3, Homatropine 87-08-1, Penicillin V 87-33-2, Isosorbide  
dinitrate 88-04-0, Chloroxylenol 89-57-6, 5-Aminosalicylic acid  
90-33-5 90-34-6, Primaquine 91-33-8, Benzthiazide 91-81-6,  
Tripelennamine 92-13-7, Pilocarpine 93-14-1, Guaifenesin  
94-09-7, Benzocaine 94-20-2, Chlorpropamide 94-24-6, Tetracaine  
95-25-0, Chlorzoxazone 97-53-0, Eugenol 97-77-8, Disulfiram  
98-96-4, Pyrazinamide 99-66-1, Valproic acid 100-97-0,  
biological studies 101-26-8, Pyridostigmine bromide 101-31-5,  
Hyoscyamine 102-76-1, Triacetin 103-16-2, Monobenzene  
103-86-6, Hydroxyamphetamine 103-90-2 104-28-9, Cinoxate  
104-31-4, Benzonatate 106-48-9 107-43-7, Betaine 108-46-3,  
1,3-Benzenediol, biological studies 110-85-0, Piperazine,  
biological studies 110-94-1, Pentanedioic acid 113-18-8,  
Ethchlorvynol 113-52-0, Imipramine hydrochloride 113-59-7,

Chlorprothixene 113-92-8, Chlorpheniramine maleate 114-07-8,  
 Erythromycin 114-80-7, Neostigmine bromide 115-38-8,  
 Mephobarbital 120-97-8, Dichlorphenamide 121-25-5, Amprolium  
 121-54-0, Benzethonium chloride

(encapsulation of sensitive liq. components into matrix to obtain  
 discrete shelf-stable particles)

IT 121-75-5, Malathion 123-31-9, Hydroquinone, biological studies  
 124-90-3, Oxycodone hydrochloride 124-94-7, Triamcinolone  
 125-28-0, Dihydrocodeine 125-33-7, Primidone 125-71-3,  
 Dextromethorphan 125-72-4, Levorphanol tartrate 126-07-8,  
 Griseofulvin 127-07-1, Hydroxyurea 127-33-3, Demeclocycline  
 127-48-0, Trimethadione 127-69-5, Sulfisoxazole 127-79-7  
 128-44-9, Saccharin sodium 128-46-1, Dihydrostreptomycin  
 128-49-4, Docusate calcium 128-62-1, Noscapine 129-20-4,  
 Oxyphenbutazone 129-49-7, Methysergide maleate 129-51-1,  
 Ergonovine maleate 130-26-7, Clioquinol 130-61-0, Thioridazine  
 hydrochloride 131-13-5 131-57-7, Oxybenzone 132-17-2,  
 Benztropine mesylate 132-92-3, Methicillin sodium 133-58-4,  
 Nitromersol 133-67-5, Trichlormethiazide 134-03-2, Sodium  
 ascorbate 134-80-5, Diethylpropion hydrochloride 135-07-9,  
 Methyclothiazide 135-09-1, Hydroflumethiazide 136-40-3,  
 Phenazopyridine hydrochloride 136-77-6, Hexyl resorcinol  
 137-58-6, Lidocaine 141-01-5, Ferrous fumarate 143-71-5,  
 Hydrocodone bitartrate 143-81-7, Butabarbital sodium 144-14-9,  
 Anileridine 144-55-8, Sodium bicarbonate, biological studies  
 144-80-9, Sulfacetamide 144-82-1, Sulfamethizole 144-83-2,  
 Sulfapyridine 146-22-5, Nitrazepam 146-54-3, Triflupromazine  
 147-52-4, Nafcillin 147-85-3, L-Proline, biological studies  
 148-79-8 148-82-3, Melphalan 151-67-7, Halothane 152-62-5,  
 Dydrogesterone 154-41-6, Phenylpropanolamine hydrochloride  
 154-42-7, Thioguanine 156-51-4, Phenelzine sulfate 297-76-7,  
 Ethynodiol diacetate 298-46-4, Carbamazepine 298-50-0,  
 Propantheline 298-57-7, Cinnarizine 298-59-9, Methylphenidate  
 hydrochloride 298-81-7, Methoxsalen 299-27-4, Potassium  
 gluconate 299-29-6, Ferrous gluconate 299-42-3, Ephedrine  
 302-22-7, Chlormadinone acetate 302-79-4, Tretinoin 303-25-3,  
 Cyclizine hydrochloride 304-20-1, Hydralazine hydrochloride  
 304-59-6, Potassium sodium tartrate, biological studies 305-03-3,  
 Chlorambucil 309-43-3, Secobarbital sodium 315-30-0, Allopurinol  
 317-34-0, Aminophylline 318-98-9 329-65-7, Racepinefrine  
 343-55-5, Dicloxacillin sodium 345-78-8, Pseudoephedrine  
 hydrochloride 346-18-9, Polythiazide 356-12-7, Fluocinonide  
 357-07-3, Oxymorphone hydrochloride 359-83-1D, Pentazocine, salts  
 360-70-3, Nandrolone decanoate 364-62-5, Metoclopramide  
 364-98-7, Diazoxide 366-70-1, Procarbazine hydrochloride  
 378-44-9, Betamethasone 379-79-3, Ergotamine tartrate 382-67-2,  
 Desoximetasone 388-51-2 389-08-2, Nalidixic acid 390-64-7,  
 Prenylamine 396-01-0, Triamterene 426-13-1, Fluorometholone

434-07-1, Oxymetholone 435-97-2, Phenprocoumon 437-74-1,  
Xantinol nicotinate 439-14-5, Diazepam 440-17-5, Trifluoperazine  
hydrochloride 443-48-1, Metronidazole 446-86-6, Azathioprine  
465-65-6, Naloxone 466-99-9, Hydromorphone 471-34-1, Calcium  
carbonate, biological studies 474-86-2, Equilin 479-18-5,  
Dyphylline 484-23-1, Dihydralazine 486-12-4, Triprolidine  
511-12-6, Dihydroergotamine 514-36-3, Fludrocortisone acetate  
514-65-8, Biperiden 518-47-8, Fluorescein sodium 520-85-4,  
Medroxyprogesterone 523-87-5, Dimenhydrinate 525-66-6  
527-07-1, Sodium gluconate 532-03-6, Methocarbamol 533-45-9,  
Clomethiazole 536-21-0, Norfenefrine 536-33-4, Ethionamide  
541-15-1, Levocarnitine 546-88-3, Acetohydroxamic acid 546-93-0,  
Magnesium carbonate 548-62-9, Gentian violet 548-73-2,  
Droperidol 549-18-8, Amitriptyline hydrochloride 550-83-4,  
Propoxycaïne hydrochloride 551-27-9, Propicillin 552-94-3,  
Salsalate 554-13-2, Lithium carbonate 554-57-4, Methazolamide  
554-92-7, Trimethobenzamide hydrochloride 555-30-6, Methyldopa  
557-34-6, Zinc acetate 562-10-7 564-25-0 577-11-7, Docusate  
sodium 579-56-6, Isoxsuprine hydrochloride 587-61-1,  
Propyliodone 590-63-6, Bethanechol chloride 595-33-5, Megestrol  
acetate 596-51-0, Glycopyrrolate 599-79-1, Sulfasalazine  
599-88-2, Sulfaperin 603-50-9, Bisacodyl 604-75-1, Oxazepam  
614-39-1, Procainamide hydrochloride 616-91-1, Acetylcysteine  
620-61-1, Hyoscyamine sulfate 630-56-8, Hydroxyprogesterone  
caproate 637-07-0, Clofibrate 637-58-1, Pramoxine hydrochloride  
642-78-4, Cloxacillin sodium 651-06-9, Sulfamethoxydiazine  
672-87-7, Metyrosine 709-55-7, Etilefrine 721-50-6, Prilocaine  
723-46-6, Sulfamethoxazole 738-70-5, Trimethoprim 745-65-3,  
Alprostadil 747-36-4, Hydroxychloroquine sulfate 768-94-5,  
Amantadine 777-11-7, Haloproglin 797-63-7, Levonorgestrel  
826-39-1, Mecamylamine hydrochloride 846-49-1, Lorazepam  
846-50-4, Temazepam 859-18-7, Lincomycin hydrochloride 865-21-4,  
Vinblastine 866-83-1, Potassium citrate 894-71-3, Nortriptyline  
hydrochloride 968-81-0, Acetohexamide 968-93-4, Testolacton  
969-33-5, Cyproheptadine hydrochloride 985-16-0, Nafcillin sodium  
1069-66-5, Sodium valproate 1070-11-7, Ethambutol hydrochloride  
1094-08-2, Ethopropazine hydrochloride 1095-90-5, Methadone  
hydrochloride 1098-97-1, Pyritinol 1104-22-9, Meclizine  
hydrochloride 1134-47-0, Baclofen 1143-38-0, Anthralin  
1151-11-7, Ipodate calcium 1156-19-0, Tolazamide 1173-88-2,  
Oxacillin sodium 1197-21-3, Phentermine hydrochloride 1221-56-3,  
Ipodate sodium 1225-55-4, Protriptyline hydrochloride 1229-29-4,  
Doxepin hydrochloride 1244-76-4 1247-42-3, Meprednisone  
1263-89-4, Paromomycin sulfate 1309-48-4, Magnesium oxide,  
biological studies 1319-82-0, Aminocaproic acid 1343-97-1,  
Selenium sulfate 1393-48-2, Thiostrepton 1400-61-9, Nystatin  
1403-17-4, Candicidin 1403-66-3, Gentamicin 1404-00-8, Mitomycin  
1404-04-2, Neomycin 1404-88-2, Tyrothricin 1404-93-9, Vancomycin



hydrochloride 1405-10-3, Neomycin sulfate 1405-20-5, Polymyxin b sulfate 1405-87-4, Bacitracin 1405-97-6, Gramicidin 1406-05-9, Penicillin 1420-55-9, Thiethylperazine 1476-53-5, Novobiocin sodium 1492-18-8, Leucovorin calcium 1508-65-2, Oxybutynin chloride 1508-75-4, Tropicamide 1508-76-5, Procyclidine hydrochloride 1524-88-5, Flurandrenolide 1597-82-6, Paramethasone acetate 1617-90-9, Vincamine 1622-61-3, Clonazepam 1622-62-4, Flunitrazepam 1639-60-7, Propoxyphene hydrochloride 1649-18-9, Azaperone 1668-19-5, Doxepin 1707-14-8, Phenmetrazine hydrochloride 1808-12-4, Bromo diphenhydramine hydrochloride 1812-30-2, Bromazepam 1897-96-7, Lonetil 1972-08-3, Dronabinol 1977-10-2, Loxapine 1982-37-2, Methdilazine 2013-58-3, Meclocycline 2022-85-7, Flucytosine 2030-63-9, Clofazimine 2062-78-4, Pimozide 2098-66-0, Cyproterone 2179-37-5, Bencyclane 2315-02-8, Oxymetazoline hydrochloride 2398-96-1, Tolnaftate 2438-32-6, Dexchlorpheniramine maleate 2447-57-6, Sulfadoxine 2589-47-1, Prajmalium bitartrate, biological studies 2609-46-3, Amiloride

(encapsulation of sensitive liq. components into matrix to obtain discrete shelf-stable particles)

IT 2709-56-0, Flupentixol 2898-12-6, Medazepam 3313-26-6, Thiothixene 3385-03-3, Flunisolide 3485-14-1, Cyclacillin 3485-62-9, Clidinium bromide 3486-35-9, Zinc carbonate 3505-38-2, Carbinoxamine maleate 3546-41-6, Pyrvinium pamoate 3572-43-8, Bromhexine 3575-80-2, Melperone 3625-06-7, Mebeverine 3632-91-5, Magnesium gluconate 3778-73-2, Ifosfamide 3810-80-8, Diphenoxylate hydrochloride 3902-71-4, Trioxsalen 3930-20-9, Sotalol 3963-95-9, Methacycline hydrochloride 3978-86-7, Azatadine maleate 4205-90-7, Clonidine 4205-91-8, Clonidine hydrochloride 4330-99-8, Trimeprazine tartrate 4468-02-4, Zinc gluconate 4498-32-2, Dibenzepine 4499-40-5, Oxtriphylline, biological studies 4759-48-2, Isotretinoin 4891-15-0, Estramustine phosphate 5051-62-7, Guanabenz 5104-49-4, Flurbiprofen 5321-32-4, Hetacillin potassium **5355-48-6** 5370-01-4, Mexiletine hydrochloride 5534-09-8, Beclomethasone dipropionate 5536-17-4, Vidarabine 5636-83-9, Dimetindene 5638-76-6, Betahistine 5874-97-5, Metaproterenol sulfate 5875-06-9, Proparacaine hydrochloride 5987-82-6, Benoxinate hydrochloride 6202-23-9, Cyclobenzaprine hydrochloride 6284-40-8, Meglumine 6385-02-0, Meclofenamate sodium 6452-73-9, Oxprenolol hydrochloride 6493-05-6, Pentoxifylline 6533-00-2, Norgestrel 6805-41-0, Aescin 7054-25-3, Quinidine gluconate 7195-27-9, Mefruside 7235-40-7, .beta.-Carotene 7246-21-1, Tyropanoate sodium 7280-37-7, Estropipate 7297-25-8, Erythrityl tetranitrate 7414-83-7, Etidronate disodium 7439-95-4D, Magnesium, salts 7439-96-5, Manganese, biological studies 7439-96-5D, Manganese, salts 7440-39-3D, Barium, salts 7440-69-9, Bismuth, biological studies 7440-70-2D, Calcium, salts

7447-40-7, Potassium chloride, biological studies 7491-74-9,  
Piracetam 7632-00-0, Sodium nitrite 7646-85-7, Zinc chloride,  
biological studies 7681-11-0, Potassium iodide, biological studies  
7681-49-4, Sodium fluoride, biological studies 7681-82-5, Sodium  
iodide (NaI), biological studies 7681-93-8, Natamycin 7693-13-2,  
Calcium citrate 7720-78-7, Ferrous sulfate 7783-00-8, Selenious  
acid 7786-30-3, Magnesium chloride, biological studies  
8002-55-9, Myrtol 8017-57-0, Trisulfapyrimidine 8024-48-4,  
Casanthranol 8029-99-0, Paregoric 8049-47-6, Pancreatin  
8050-81-5, Simethicone 8065-29-0, Liotrix 8067-24-1 9000-92-4,  
Amylase 9001-00-7, Bromelin 9001-01-8, Kallidinogenase  
9001-62-1, Lipase 9001-73-4, Papain 9001-92-7, Proteinase  
9002-07-7, Trypsin 9002-60-2, Corticotropin, biological studies  
9002-61-3, Chorionic gonadotropin **9002-86-2**, Polyvinyl  
chloride 9003-20-7, Polyvinyl acetate 9003-97-8, Polycarbophil  
9004-07-3, Chymotrypsin 9004-10-8, Insulin, biological studies  
9004-32-4, Carboxymethylcellulose 9004-34-6, Cellulose, biological  
studies 9004-70-0, Pyroxylin 9005-25-8, Starch, biological  
studies 9005-80-5, Inulin 9008-05-3, Histoplasmin 9012-54-8,  
Cellulase 9025-49-4 9025-56-3, Hemicellulase 9032-75-1,  
Pectinase 9068-42-2, Pentosanase 10025-73-7, Chromic chloride  
10040-45-6, Sodium picosulfate 10238-21-8, Glibenclamide  
10246-75-0, Hydroxyzine pamoate 10262-69-8, Maprotiline  
10347-81-6, Maprotiline hydrochloride 10379-14-3, Tetrazepam  
10418-03-8, Stanazolol 10540-29-1, Tamoxifen 11000-17-2,  
Vasopressin 12125-02-9, Ammonium chloride, biological studies  
12622-73-0, Coccidioidin 12633-72-6, Amphotericin 12650-69-0,  
Mupirocin 13009-99-9, Mafenide acetate 13042-18-7, Fendiline  
13292-46-1, Rifampin 13311-84-7, Flutamide 13392-18-2, Fenoterol  
13422-51-0, Hydroxocobalamin 13463-67-7, Titanium dioxide,  
biological studies 13523-86-9, Pindolol 13614-98-7, Minocycline  
hydrochloride 13682-92-3 14009-24-6, Drotaverine 14028-44-5,  
Amoxapine 14402-89-2, Sodium nitroprusside 14779-78-3, Padimate  
14976-57-9, Clemastine fumarate 15307-86-5, Diclofenac  
15622-65-8, Molindone hydrochloride 15663-27-1, Cisplatin  
15676-16-1, Sulpiride 15686-51-8, Clemastine 15686-71-2,  
Cephalexin 15687-27-1 15687-41-9, Oxyfedrine 16034-77-8,  
Iocetamic acid 16051-77-7 16482-55-6 16595-80-5, Levamisole  
hydrochloride 16662-47-8, Gallopamil 17140-78-2, Propoxyphene  
napsylate 17230-88-5, Danazol 17560-51-9, Metolazone  
17617-23-1, Flurazepam 18378-89-7, Plicamycin 18559-94-9,  
Salbutamol 19216-56-9, Prazosin 19237-84-4, Prazosin  
hydrochloride 19356-17-3, Calcifediol **20830-75-5**,  
Digoxin 21462-39-5, Clindamycin hydrochloride 21738-42-1,  
Oxamniquine 21829-25-4, Nifedipine 22059-60-5, Disopyramide  
phosphate 22071-15-4, Ketoprofen 22195-34-2, Guanadrel sulfate  
22204-24-6, Pyrantel pamoate 22204-53-1, Naproxen 22232-71-9,  
Mazindol 22260-51-1, Bromocriptine mesylate 22316-47-8, Clobazam

22494-42-4, Diflunisal 22916-47-8, Miconazole 23031-25-6,  
 Terbutaline 23031-32-5, Terbutaline sulfate 23214-92-8,  
 Doxorubicin 23288-49-5, Probucol 23593-75-1, Clotrimazole  
 23869-24-1, O-(.beta.-Hydroxyethyl)rutoside 24219-97-4, Mianserin  
 24390-14-5, Doxycycline hyclate 24729-96-2, Clindamycin phosphate  
 25046-79-1, Glisoxepide 25155-18-4, Methylbenzethonium chloride  
 25301-02-4, Tyloxapol 25332-39-2, Trazodone hydrochloride  
 25389-94-0, Kanamycin sulfate 25614-03-3, Bromocriptine  
 25655-41-8, Povidone iodine 25812-30-0, Gemfibrozil 25953-19-9,  
 Cefazolin 26027-38-3, Nonoxynol 9 26171-23-3, Tolmetin  
 26605-69-6, Carbenicillin indanyl sodium 26652-09-5, Ritodrine  
 26652-10-8 26675-46-7, Isoflurane 26787-78-0, Amoxycillin  
 26807-65-8, Indapamide 26839-75-8, Timolol 26944-48-9,  
 Glibornuride 27203-92-5, Tramadol 27823-62-7, Chlortetracycline  
 bisulfate 28088-64-4, Aminosalicyclic acid 28395-03-1, Bumetanide  
 28657-80-9, Cinoxacin 28797-61-7, Pirenzepin 28860-95-9,  
 Carbidopa 28911-01-5, Triazolam 28981-97-7, Alprazolam  
 29122-68-7, Atenolol 29679-58-1, Fenoprofen 30516-87-1  
 30578-37-1, Amezinium metilsulfate **30685-43-9**,  
 Metildigoxin 31329-57-4, Naftidrofuryl 31431-39-7, Mebendazole  
 31637-97-5, Etofibrate 31828-71-4, Mexiletine 32672-69-8,  
 Mesoridazine besylate 32780-64-6, Labetalol hydrochloride  
 32887-01-7, Amdinocillin 33005-95-7, Tiaprofenic acid  
 33286-22-5, Diltiazem hydrochloride 33402-03-8, Metaraminol  
 bitartrate 33419-42-0, Etoposide 33996-33-7, Oxaceprol  
 34031-32-8, Auranofin 34183-22-7, Propafenone hydrochloride  
 34552-83-5, Loperamide hydrochloride 34580-13-7, Ketotifen  
 34787-01-4, Ticarcillin 36322-90-4, Piroxicam 36688-78-5  
 36791-04-5, Ribavirin 37270-89-6, Heparin calcium 37341-58-5,  
 Phytase 37517-28-5, Amikacin 37517-30-9, Acebutolol  
 38194-50-2, Sulindac 38260-01-4, Trientine hydrochloride  
 38304-91-5, Minoxidil 38363-40-5, Penbutolol 38396-39-3,  
 Bupivacaine 38821-53-3, Cephradine

(encapsulation of sensitive liq. components into matrix to obtain  
 discrete shelf-**stable** particles)

IT 39562-70-4, Nitrendipine 40828-46-4, Suprofen 41859-67-0  
 42200-33-9, Nadolol 42399-41-7 42540-40-9, Cefamandole nafate  
 49562-28-9 49745-95-1, Dobutamine hydrochloride 50370-12-2,  
 Cefadroxil 50679-08-8, Terfenadine 50925-79-6, Colestipol  
 50972-17-3, Bacampicillin 51022-69-6, Amcinonide 51481-61-9,  
 Cimetidine 51781-06-7, Carteolol 52468-60-7, Flunarizine  
 53164-05-9, Acemetacin 53179-11-6, Loperamide 53230-10-7,  
 Mefloquine 53608-75-6, Pancrelipase 53994-73-3, Cefaclor  
 54063-53-5, Propafenone 54143-55-4, Flecainide 54182-58-0,  
 Sucralfate 54504-70-0, Etofylline clofibrate 54965-21-8,  
 Albendazole 54965-24-1, Tamoxifen citrate 55268-74-1,  
 Praziquantel 55837-25-7, Buflomedil 55837-27-9, Piretanide  
 56392-17-7, Metoprolol tartrate 57109-90-7, Dipotassium

chlorazepate 57432-61-8, Methylergonovine maleate 58551-69-2,  
 Carboprost tromethamine 59277-89-3, Acyclovir 59865-13-3,  
 Cyclosporine 60166-93-0, Iopamidol 60200-06-8, Clorsulon  
 61177-45-5, Clavulanate potassium 61563-18-6, Soquinolol  
 62571-86-2, Captopril 62893-19-0, Cefoperazone 63527-52-6,  
 Cefotaxime 63659-18-7, Betaxolol 64544-07-6, Cefuroxime axetil  
 65277-42-1, Ketoconazole 65666-07-1, Silymarin 65899-73-2,  
 Tioconazole 66108-95-0, Iohexol 66357-35-5, Ranitidine  
 66711-21-5, Apraclonidine 66734-13-2, Alclometasone dipropionate  
 68844-77-9, Astemizole 70458-96-7 72558-82-8, Ceftazidime  
 74978-16-8, Magaldrate 75330-75-5, Lovastatin 76095-16-4,  
 Enalapril maleate 76420-72-9, Enalaprilat 76470-66-1, Loracarbef  
 76547-98-3, Lisinopril 76824-35-6, Famotidine 76963-41-2,  
 Nizatidine 78110-38-0, Aztreonam 78266-06-5, Mebrofenin  
 79350-37-1, Cefixime 81103-11-9, Clarithromycin 83200-10-6,  
 Anipamil 83905-01-5, Azithromycin 85721-33-1, Ciprofloxacin  
 92665-29-7, Cefprozil 102188-40-9, Acromycin 189752-49-6D, metal  
 complexes 198080-50-1 264875-48-1, Tyrothricin-bethamethasone  
 mixt.

(encapsulation of sensitive liq. components into matrix to obtain  
 discrete shelf-**stable** particles)

IT 144114-21-6, Retropepsin  
 (inhibitors; encapsulation of sensitive liq. components into  
 matrix to obtain discrete shelf-**stable** particles)

IT 61489-71-2, Menotropin  
 (menotrophin; encapsulation of sensitive liq. components into  
 matrix to obtain discrete shelf-**stable** particles)

L65 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:105127 Document No. 132:136656 Preservation of vitamin  
 C-containing liquid products in containers having oxygen removing  
 property. Tanaka, Hirokazu (Mitsubishi Gas Chemical Co., Ltd.,  
 Japan). Jpn. Kokai Tokkyo Koho JP 2000043950 A2 20000215, 4 pp.  
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-207258 19980723.

AB A container, at least a part of which employs a multilayer laminate  
 comprising (1) a thermoplastic resin sepg. layer, (2) a  
 thermoplastic resin-based O-absorbing layer contg. O-removing  
 compns. dispersed therein, and (3) a gas-barrier layer so that the  
 layer (1) is toward inside the container, is filled with a vitamin  
 C-contg. liq. product, e.g. juice, transfusion soln., etc., sealed,  
 held until dissolved O concn. in the product decreases to .ltoreq.1  
 ppm, and then heated at 100-150.degree.. The preservation method  
 prevents oxidn. and decompn. of vitamin C. A polypropylene side of  
 a PET/Al foil/polypropylene laminate was extrusion-laminated with  
 ethylene-propylene copolymer contg. CaCl<sub>2</sub>-coated Fe powder, and  
 further laminated with ethylene-propylene block copolymer to give an  
 O-removing laminate. A bag fabricated from the laminate was packed  
 with an aq. vitamin C soln. (10 mg/100 mL), heat-sealed, held at

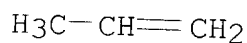
25.degree. for 8 h, and then retorted at 120.degree. for 40 min.  
The bag was kept at 25.degree. for 1 mo to show the concn. of  
vitamin C 9.8 mg/100 mL.

IT 9003-07-0, Polypropylene  
(oxygen-removing layer; preservation of vitamin C-contg. liqs. by  
packing in O-removing multilayer laminates and retorting)  
RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

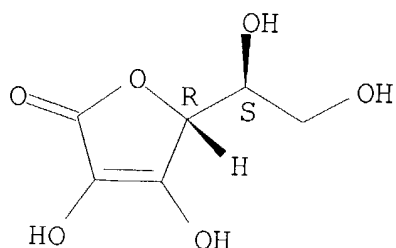
CRN 115-07-1

CMF C3 H6



IT 50-81-7, Vitamin C, biological studies  
(preservation of vitamin C-contg. liqs. by packing in O-removing  
multilayer laminates and retorting)  
RN 50-81-7 HCAPLUS  
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME).

Absolute stereochemistry.



IC ICM B65D081-26  
ICS A61K009-00; A23L001-302; B32B007-02; C07D307-62  
CC 17-4 (Food and Feed Chemistry)  
IT 9003-07-0, Polypropylene  
(oxygen-removing layer; preservation of vitamin C-contg. liqs. by  
packing in O-removing multilayer laminates and retorting)  
IT 50-81-7, Vitamin C, biological studies  
(preservation of vitamin C-contg. liqs. by packing in O-removing  
multilayer laminates and retorting)  
IT 106565-43-9, Ethylene-propylene block **copolymer**  
(sepg. layer; **preservation** of vitamin C-contg. liqs. by  
packing in O-removing multilayer laminates and retorting)

L65 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1999:457554 Document No. 131:223446 Modulation of expression of endothelial nitric oxide synthase by nordihydroguaiaretic acid, a phenolic **antioxidant** in cultured endothelial cells. Ramasamy, Santhini; Drummond, Grant R.; Ahn, Joon; Storek, Michal; Pohl, Jan; Parthasarathy, Sampath; Harrison, David G. (Division of Cardiology, Emory University, Atlanta, GA, USA). Molecular Pharmacology, 56(1), 116-123 (English) 1999. CODEN: MOPMA3. ISSN: 0026-895X. Publisher: American Society for Pharmacology and Experimental Therapeutics.

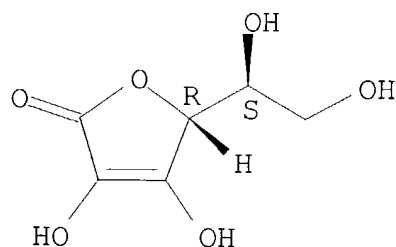
AB Retrospective epidemiol. studies have suggested that **antioxidant** therapy may decrease cardiovascular morbidity and mortality rates, although the mechanisms for this effect remain unclear. In the present study, we demonstrate that selective **antioxidants** can enhance expression of endothelial nitric oxide synthase (eNOS). We found that the **antioxidants** nordihydroguaiaretic acid (NDGA), catechol, glutaryl probucol, and N-acetylcysteine increased eNOS expression in cultured bovine aortic endothelial cells (BAECs). NDGA seemed to be the most potent of the phenolic **antioxidants**, producing a 3-fold increase in eNOS mRNA. This effect of NDGA was enhanced by **nonphenolic antioxidants** such as N-acetylcysteine and ascorbic acid. Nuclear run-on studies indicated that NDGA increased eNOS transcription. A similar increase in eNOS protein content was obsd. with Western blot anal. after treating BAECs or human aortic endothelial cells with NDGA. Exposure of BAECs to NDGA enhanced NO prodn., as measured by ESR spin trapping and eNOS activity, as measured by [14C]arginine-to-[14C]citrulline assay. Methylation of the phenolic hydroxyl groups completely inhibited the NDGA effect on eNOS mRNA levels. This effect of NDGA was not due to inhibition of lipoxygenase because cis-5,8,11,14-eicosatetraynoic acid did not alter eNOS expression. We conclude that **antioxidants** may not only increase the bioactivity of nitric oxide but also enhance expression of the eNOS enzyme. Such an effect may prove useful in conditions such as hypertension and atherosclerosis, in which nitric oxide prodn. and/or biol. activity is impaired.

IT 50-81-7, L-Ascorbic acid, biological studies  
(phenolic **antioxidants** modulation of endothelial nitric oxide synthase)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



- CC 1-12 (Pharmacology)  
 ST phenolic **antioxidant** endothelial nitric oxide synthase  
 IT Antiarteriosclerotics  
     (antiatherosclerotics; phenolic **antioxidants** modulation  
     of endothelial nitric oxide synthase)  
 IT Artery  
     (endothelium; phenolic **antioxidants** modulation of  
     endothelial nitric oxide synthase)  
 IT Gene, animal  
     mRNA  
     (for eNOS; phenolic **antioxidants** modulation of  
     endothelial nitric oxide synthase)  
 IT Antihypertensives  
     **Antioxidants**  
     Transcription, genetic  
     Vasodilators  
     (phenolic **antioxidants** modulation of endothelial nitric  
     oxide synthase)  
 IT 50-81-7, L-Ascorbic acid, biological studies 120-80-9,  
 Catechol, biological studies 500-38-9, Nordihydroguaiaretic acid  
 616-91-1, N-Acetylcysteine 23288-49-5  
     (phenolic **antioxidants** modulation of endothelial nitric  
     oxide synthase)  
 IT 10102-43-9, Nitric oxide, biological studies 125978-95-2, Nitric  
 oxide synthase  
     (phenolic **antioxidants** modulation of endothelial nitric  
     oxide synthase)  
 IT 9029-60-1, Lipxygenase  
     (phenolic **antioxidants** modulation of endothelial nitric  
     oxide synthase)

L65 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
 1999:249029 Document No. 130:286821 **Stable** cosmetic  
 water-in-oil-in-water emulsion containing carboxylic acid polymers  
 and crosslinked poly(acrylamidomethylpropane sulfonic acid).  
 Afriat, Isabelle; Chanvin, Florence; Guiramand, Carole (L'Oreal,  
 Fr.). Eur. Pat. Appl. EP 908170 A1 19990414, 17 pp. DESIGNATED

STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (French). CODEN: EPXXDW.  
APPLICATION: EP 1998-402250 19980911. PRIORITY: FR 1997-12364 19971003.

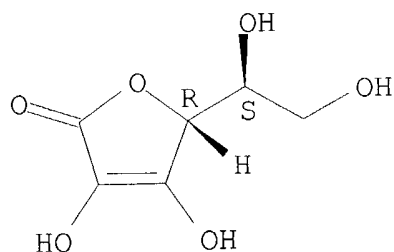
AB The title cosmetic emulsion which are used for cleansing or protection of skin, mucosa and hair are disclosed.  
Poly(2-acrylamido-2-methylpropane sulfonic acid) was crosslinked with trimethylolpropane triacrylate and neutralized with ammonia. Formulation of a triple emulsion contg. 2% of above polymer is disclosed.

IT 50-81-7, Ascorbic acid, biological studies  
(**stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61K007-00

ICS A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 35, 38

ST **stability** cosmetic emulsion carboxylic acid polymer;  
crosslinking polyacrylamidomethylpropane sulfonic acid cosmetic emulsion

IT Fats and Glyceridic oils, biological studies  
(animal; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))

IT Polyoxyalkylenes, biological studies  
(di-Me, Me hydrogen polysiloxane-, alkyl derivs.; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))

IT Polysiloxanes, biological studies  
(di-Me, Me hydrogen, polyoxyalkylene-, alkyl derivs.; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))



- IT   Cosmetics  
     (emulsions; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Polysiloxanes, biological studies  
     (fluoro; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Carboxylic acids, biological studies  
     (hydroxy; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Polysiloxanes, biological studies  
     (phenyltrimethyl; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Alcohols, biological studies  
     (polyhydric; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   **Antioxidants**  
     Deodorants  
     Dyes  
     Hair preparations  
     Mucous membrane  
     Perfumes  
     **Preservatives**  
     Sequestering agents  
     Solvents  
     Sunscreens  
          (**stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Enzymes, biological studies  
     Isoalkanes  
     Lipids, biological studies  
     Paraffin oils  
     Polysiloxanes, biological studies  
     Vitamins  
     Waxes  
          (**stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   Fats and Glyceridic oils, biological studies  
     (vegetable; **stable** cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT   50-21-5, biological studies 50-81-7, Ascorbic acid,

biological studies 57-13-6, Urea, biological studies 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 76-93-7, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 80-69-3, Tartronic acid 87-69-4, biological studies 90-64-2, Mandelic acid 110-17-8, 2-Butenedioic acid (2E)-, biological studies 127-17-3, Pyruvic acid, biological studies 153-18-4, Rutin 302-79-4, Retinoic acid 331-39-5 501-30-4, Kojic acid 526-95-4, D-Gluconic acid 544-57-0, 2-Hydroxytetracosanoic acid 547-64-8, Methyllactate 600-15-7, 2-Hydroxybutanoic acid 617-31-2, 2-Hydroxypentanoic acid 617-73-2, 2-Hydroxyoctanoic acid 629-22-1, 2-Hydroxyoctadecanoic acid 636-69-1, 2-Hydroxyheptanoic acid 685-73-4, Galacturonic acid 764-67-0, 2-Hydroxyhexadecanoic acid 828-01-3 2507-55-3, 2-Hydroxytetradecanoic acid 2984-55-6, 2-Hydroxydodecanoic acid 5393-81-7, 2-Hydroxydecanoic acid 6064-63-7, 2-Hydroxyhexanoic acid 6556-12-3, Glucuronic acid 6915-15-7, Malic acid 7664-38-2D, Phosphoric acid, glycosylated derivs., biological studies 9016-00-6, Polydimethylsiloxane 15896-36-3, 2-Hydroxynonanoic acid 16742-48-6, 2-Hydroxyeicosanoic acid 17812-24-7, Ribonic acid 17941-34-3, Aleuritic acid 19790-86-4, 2-Hydroxyundecanoic acid 31900-57-9, Polydimethylsiloxane 191226-60-5

(stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))

IT 202000-47-3P

(stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))

L65 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:710918 Document No. 128:3142 Active polymer films for packaging of meat products. Makarevich, A. V.; Ukhartseva, I. Yu.; Gol'dade, V. A.; Parkalova, E. I. (Russia). *Plasticheskie Massy* (4), 51-53 (Russian) 1995. CODEN: PLMSAI. ISSN: 0554-2901. Publisher: NPAOZT "Plastmassy".

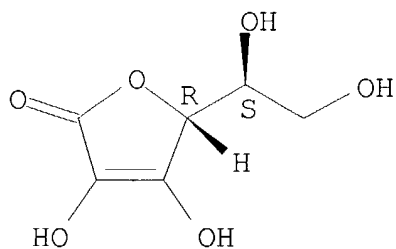
AB Incorporation of preservatives (e.g., ascorbic acid, benzoic acid, glucose, coriander oil) into polyethylene film afforded an extra means of preserving packaged meat. Thus, the shelf-life of beef could be extended 2-3-fold by using the active film.

IT 50-81-7, Ascorbic acid, biological studies  
(active polymer films for packaging of meat products)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

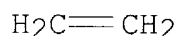


IT 9002-88-4, Polyethylene  
 (active polymer films for packaging of meat products)  
 RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



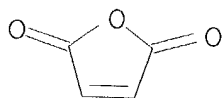
CC 17-7 (Food and Feed Chemistry)  
 Section cross-reference(s): 37  
 IT Food **preservatives**  
 (active **polymer** films for packaging of meat products)  
 IT 50-81-7, Ascorbic acid, biological studies 50-99-7,  
 Glucose, biological studies 65-85-0, Benzoic acid, biological  
 studies  
 (active polymer films for packaging of meat products)  
 IT 9002-88-4, Polyethylene  
 (active polymer films for packaging of meat products)

L65 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
 1996:392042 Document No. 125:88658 Process for the preparation of  
**stable** water based stock solutions of crosslinked lower  
 alkyl vinyl ether and maleic anhydride copolymers and hydrogel  
 product of the process. Kwak, Yoon T.; Kopolow, Stephen L.; Login,  
 Robert B. (ISP Investments Inc., USA). U.S. US 5516828 A 19960514,  
 4 pp., Division of U.S. Ser. No. 359, 096. (English). CODEN:  
 USXXAM. APPLICATION: US 1995-528382 19950913. PRIORITY: US  
 1994-359096 19941219.

AB This invention relates to **stable** colorless concs. and  
 stock solns. of 1-5% crosslinked lower alkyl vinyl ether-maleic  
 anhydride copolymers having a Brookfield viscosity of up to about

25,000 cps and to the process for their prepn. The alkyl vinyl ethers are those of C1-C4, preferably Me and Et vinyl ethers. The crosslinking agents used are .alpha.,.omega.-unsatd. C6-C8 alkadienes or divinylbenzene.

- IT 108-31-6D, Maleic anhydride, polymers with alkyl vinyl ethers, alkadiene-crosslinked  
 (prepn. of **stable** water-based stock solns. of crosslinked lower alkyl vinyl ether-maleic anhydride copolymers and hydrogel product of the process)
- RN 108-31-6 HCAPLUS
- CN 2,5-Furandione (9CI) (CA INDEX NAME)



- IC ICM C08K003-10
- NCL 524401000
- CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 46, 62, 63
- ST **stable** aq thickener maleic anhydride copolymer; vinyl ether maleic anhydride copolymer soln; diene crosslinked maleic anhydride copolymer thickener
- IT 128-37-0, BHT, uses 1406-18-4, Vitamin E  
 (**antioxidant**; prepn. of **stable** water-based stock solns. of crosslinked lower alkyl vinyl ether-maleic anhydride copolymers and hydrogel product of the process)
- IT 108-31-6D, Maleic anhydride, polymers with alkyl vinyl ethers, alkadiene-crosslinked 26711-22-8D, Ethyl vinyl ether-maleic anhydride copolymer, alkadiene-crosslinked 178695-36-8  
 (prepn. of **stable** water-based stock solns. of crosslinked lower alkyl vinyl ether-maleic anhydride copolymers and hydrogel product of the process)
- IT 532-32-1, Sodium benzoate  
 (**preservative**; prepn. of **stable** water-based stock solns. of crosslinked lower alkyl vinyl ether-maleic anhydride copolymers and hydrogel product of the process)
- L65 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
 1995:869802 Document No. 123:342855 Laminated packaging films containing polyethylene. Fujii, Toshio; Kato, Kazuhiro; Kondo, Toyomitsu (Mitsubishi Kagaku Kk, Japan). Jpn. Kokai Tokkyo Koho JP 07195636 A2 19950801 Heisei, 6 pp. (Japanese). CODEN: JKXXAF.  
 APPLICATION: JP 1993-349466 19931228.
- AB The title films comprise outer layers, middle layers, and inner

layers, in which the outer and inner layers comprise polyethylene compns. with d. 0.920-0.935 g/cm<sup>3</sup> and extrusion coeff. (EC) 6.5-14 g<sup>2</sup>/10 min and the contents of phenol-based **antioxidants** .1toreq.100 ppm. The films are useful for packaging of food, etc. Thus, outer and inner layer-forming polyethylene (d. 0.925 g/cm<sup>3</sup>, EC 9.5 g<sup>2</sup>/10 min) and middle layer-forming nylon 6 were laminated using adhesive layers comprising maleated polyethylene to give a film showing good transparency, heat resistance, cutting property, and adhesion strength. The film did not show discoloration by **preservation** at 25.degree. under dark for 2 wk.

IT 9002-88-4DP, Polyethylene, maleated  
(adhesive layers; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

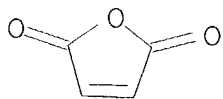
CMF C2 H4



IT 108-31-6DP, Maleic anhydride, reaction products with polyethylene  
(adhesives; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)

RN 108-31-6 HCAPLUS

CN 2,5-Furandione (9CI) (CA INDEX NAME)



IT 9002-88-4, Polyethylene  
(outer layers; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM B32B027-32

ICS B32B007-02; B32B027-18

CC **38-3** (Plastics Fabrication and Uses)

Section cross-reference(s): 17

ST packaging laminated film polyethylene polyamide; phenolic  
**antioxidant** packaging film polyethylene; discoloration  
prevention packaging film polyethylene; heat resistance polyethylene  
film packaging; transparency polyethylene film packaging; extrusion  
coeff polyethylene film packaging

IT Discoloration prevention

Food

Heat-resistant materials

Transparent materials

(laminated packaging films contg. polyethylene with low contents  
of phenol-based **antioxidants** at outer and inner layers  
with good **stability**, heat resistance, and cutting  
property)

IT Plastics, film

Plastics, laminated

(laminated packaging films contg. polyethylene with low contents  
of phenol-based **antioxidants** at outer and inner layers  
with good **stability**, heat resistance, and cutting  
property)

IT Polyamides, uses

(middle layers; laminated packaging films contg. polyethylene  
with low contents of phenol-based **antioxidants** at outer  
and inner layers with good **stability**, heat resistance,  
and cutting property)

IT **Antioxidants**

(phenol-based; laminated packaging films contg. polyethylene with  
low contents of phenol-based **antioxidants** at outer and  
inner layers with good **stability**, heat resistance, and  
cutting property)

IT Phenols, miscellaneous

(compds., **antioxidants**; laminated packaging films  
contg. polyethylene with low contents of phenol-based  
**antioxidants** at outer and inner layers with good

- stability**, heat resistance, and cutting property)
- IT Packaging materials  
(films, laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)
- IT 9002-88-4DP, Polyethylene, maleated  
(adhesive layers; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)
- IT 108-31-6DP, Maleic anhydride, reaction products with polyethylene  
(adhesives; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)
- IT 25038-54-4, Nylon 6, uses  
(middle layers; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)
- IT 9002-88-4, Polyethylene  
(outer layers; laminated packaging films contg. polyethylene with low contents of phenol-based **antioxidants** at outer and inner layers with good **stability**, heat resistance, and cutting property)

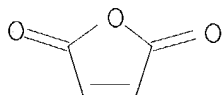
L65 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1995:708312 Document No. 123:84333 Water-soluble and air-drying resin for use in coatings. Dekker, Gerrit Hendrik; Hendriks, Johannes Wilhelmus Maria; Pons, Dick Adriaan (DSM N.V., Neth.). PCT Int. Appl. WO 9418260 A1 19940818, 14 pp. DESIGNATED STATES: W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.

AB APPLICATION: WO 1994-NL19 19940127. PRIORITY: BE 1993-118 19930209.  
A H<sub>2</sub>O-sol. and air drying resin comprises units of (A) a monoether of a polyethylene glycol having 5-100 ethylene oxide units/mol. and (B) the reaction product of (B1) .gtoreq.1 unsatd. fatty acids or .gtoreq.1 polyalc.(s) esterified with unsatd. fatty acids with (B2) an .alpha.,.beta.-ethylenically unsatd. carboxyl compd. at A:B molar ratio .apprx.0.2-4:1. The resin can be used as a dispersing agent in a wood preservative and in a pigment paste contributing to good gloss in paints. Linseed oil was maleated to give a product having acid no. 115 mg KOH/g, which was subsequently esterified with methoxy polyethylene glycol to give resin (I) having I value 110 g

I/100 g resin and acid no. 35 mg KOH/g. A pigment paste contg. I was formulated into an alkyd paint showing 20 .degree. gloss 95, vs. 83 for pigment paste contg. Borchigen DFN instead of I.

- IT **108-31-6DP**, Maleic anhydride, linseed oil adduct, ester with methoxy polyethylene glycol  
(water-sol. and air-drying resin for use in coatings)
- RN 108-31-6 HCAPLUS
- CN 2,5-Furandione (9CI) (CA INDEX NAME)



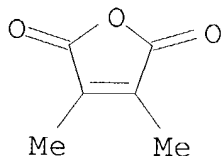
- IC ICM C08G065-32  
ICS C08L071-02; C09D017-00
- CC **35-5** (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 42
- ST water sol air drying unsatd resin; maleic anhydride adduct resin water sol; linseed oil adduct resin water sol; methoxy polyethylene glycol adduct water sol; pigment dispersant air drying resin; wood **preservative** air drying resin dispersant
- IT **108-31-6DP**, Maleic anhydride, linseed oil adduct, ester with methoxy polyethylene glycol 25322-68-3DP, Polyethylene glycol, ester with maleated linseed oil  
(water-sol. and air-drying resin for use in coatings)
- L65 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
1994:269617 Document No. 120:269617 Synthesis of methyl (Z)- and (E)-2-methyl(3-D)propenoates and their incorporation into polymethacrylates. Keah, Hooi Hong; Rae, Ian D. (Fac. Sci., Monash Univ., Clayton, 3168, Australia). Australian Journal of Chemistry, 46(12), 1919-28 (English) 1993. CODEN: AJCHAS. ISSN: 0004-9425.
- AB Me (E)- and (Z)-2-methyl(3-D)propenoates were prepd. from (E)-3-bromo-2-methylpropenoic acid. Polymn. by free radical methods led to random incorporation, but anionic **polymn.** **preserved** labeling specificity, and the <sup>1</sup>H NMR spectra of the labeled polymers confirm earlier assignments. Di-Me 2,3-dimethylbutanoate was prepd. by two new methods from dimethylmaleic anhydride and converted by anionic polymn. into a methacrylate polymer with a head-to-head linkage approx. in the center of the chain. Thermal degrdn. of this polymer could only be achieved at temps. so high that labeled monomers were themselves isomerized. Methacrylate polymers produced by anionic polymn. in the presence of diisopropylamine do not exhibit the isotacticity found with this form of polymn.
- IT **766-39-2**



(ring opening and sequential hydrogenation of)

RN 766-39-2 HCAPLUS

CN 2,5-Furandione, 3,4-dimethyl- (9CI) (CA INDEX NAME)



CC 23-17 (Aliphatic Compounds)

Section cross-reference(s): 35

IT 766-39-2

(ring opening and sequential hydrogenation of)

L65 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1990:215438 Document No. 112:215438 Food packaging materials containing polyolefin resins, olefin-vinyl alc. resins, and block graft copolymers. Watanabe, Kazuyuki; Kira, Koichi (Showa Denko K. K., Japan). Jpn. Kokai Tokkyo Koho JP 01313552 A2 19891219 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-146044 19880613.

AB Food packaging materials contg. thermoplastic polyolefin resins 5-70, olefin-vinyl alc. resins 30-90, and modified copolymers, are manufd. by graft polymn. of unsatd. carboxylic acids onto 100 wt. parts hydrogenated vinyl arom. compd.-conjugated diene block copolymers, 2-20 wt.%. The materials can be heat-sealed and preserve flavor of foods (e.g. juice, coffee, retort foods). Kraton G1652 (styrene-ethylene-butylene block copolymer) was modified with maleic anhydride in the presence of dicumyl peroxide in an extruder at 240.degree. to give 2.8 wt. parts maleic anhydride-contg. modified block copolymer, which (5 wt.%) was pelletized with 47.5 wt.% Sho-Allomer FD432 (polypropylene) and 47.5 wt.% Eval EPF101 (ethylene-vinyl alc. copolymer) and made into a film. Five flavors were preserved in a pouch made of the film (inner side), Al foil, and polyethylene terephthalate film at 23.degree. for 50 days with little adsorption by the film.

IT 9002-88-4, Sholex L 170 9003-07-0, Shoallomer FD 432

(food packaging materials contg. olefin-vinyl alc. resins and block graft copolymers and, for flavor preservation)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1  
CMF C2 H4



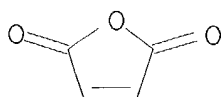
RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1  
CMF C3 H6



IT **108-31-6D**, 2,5-Furandione, reaction product with  
styrene-ethylene-butylene block copolymer  
(food packaging materials contg. polyolefin resins and  
olefin-vinyl alc. resins and, for flavor preservation)  
RN 108-31-6 HCAPLUS  
CN 2,5-Furandione (9CI) (CA INDEX NAME)



IC ICM C08L029-04  
ICS C08L023-00  
ICA A23L002-00; A23L003-00  
ICI C08L023-00, C08L053-02  
CC 17-4 (Food and Feed Chemistry)  
ST package food graft block copolymer; flavor **preservation**  
food package **polymer**  
IT **9002-88-4**, Sholex L 170 **9003-07-0**, Shoallomer FD  
432  
(food packaging materials contg. olefin-vinyl alc. resins and  
block graft copolymers and, for flavor preservation)  
IT **108-31-6D**, 2,5-Furandione, reaction product with  
styrene-ethylene-butylene block copolymer 106108-28-5D,  
Butylene-ethylene-styrene block copolymer, reaction product with  
maleic anhydride  
(food packaging materials contg. polyolefin resins and

olefin-vinyl alc. resins and, for flavor preservation)

L65 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1988:456757 Document No. 109:56757 Thermosetting alkyd resin lithographic printing inks for metals. Kitani, Yasuo; Yoshida, Yuji (Mitsubishi Petrochemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63000367 A2 19880105 Showa, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-81863 19860409.

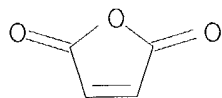
AB The title storage-**stable** inks, thermally cured to products with good discoloration resistance, flexural resistance, hardness, gloss and smoothness, comprise 50-90 parts oil-modified alkyd resins (A) contg. 30-80% oils, 10-50 parts polyether polyol (meth)acrylates [B; liq. at 20.degree., sol. in the alkyd resins, av. mol. wt. [Ma; based on per (meth)acryloxy] .ltoreq. 500] [prepd. from polyols derived from an initiator contg. n **nonphenolic** OH and m mol ethylene oxide and/or propylene oxide (per mol initiator) and (meth)acrylic acid with n = 2-6, m/n 1-6], 0-20 parts (meth)acrylic esters (C) having .gtoreq.3 (meth)acryloxy groups and Ma .ltoreq.300 and 0-0.01% (based on 100 parts A + B + C) Co- or Mn-contg. driers. Thus, a varnish contg. A (fatty acids of dehydrated castor oil, phthalic anhydride, glycerol, and neopentyl glycol) 60, trimethylolpropane-ethylene oxide adduct trimethacrylate 40 and TiO2 100 parts and showing good storage **stability** after 1 wk storage at 50.degree. or 5.degree. was spread on a steel plate, printed, and dried at 150.degree. for 10 min to form a tack-free product with good flexural resistance (JIS K 5400), hardness (JIS K 5025), and nonyellowing after heating at 150.degree. for 0.5 h.

IT 108-31-6D, 2,5-Furandione, reaction products with alloocimene, polymers with fatty acids, polyols and polyether polyol (meth)acrylates

(manuf. of varnishes contg., storage-**stable**, for lithog. printing inks for metals)

RN 108-31-6 HCAPLUS

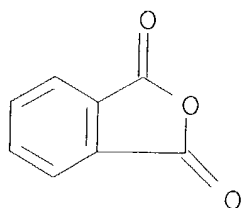
CN 2,5-Furandione (9CI) (CA INDEX NAME)



IT 85-44-9DP, Phthalic anhydride, polymers with fatty acids, polyols and polyether polyol (meth)acrylates (manuf. of, varnishes contg., storage-**stable**, for lithog. printing inks for metals)

RN 85-44-9 HCAPLUS

CN 1,3-Isobenzofurandione (9CI) (CA INDEX NAME)



- IC ICM C09D003-66
- CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 55, 56, 74
- ST oil modified alkyd resin ink; polyether polyol methacrylate ink; polymethacryloxy compd alkyd resin ink; storage **stability** alkyd **resin** ink; hardness alkyd resin ink metal; smoothness alkyd resin ink metal; gloss alkyd resin ink metal; nonyellowing alkyd resin ink metal; lithog printing ink metal; polyester polyacrylate lithog thermosetting ink; polyoxyalkylene methacrylate ink
- IT Metals, uses and miscellaneous  
(oil-modified alkyd resin-contg. inks for, storage-**stable**, with good discoloration resistance)
- IT Inks  
(lithog., thermosetting, contg. oil-modified alkyd resin and polyether polyol (meth)acrylate, storage-**stable**, with good discoloration resistance, for metals)
- IT **108-31-6D**, 2,5-Furandione, reaction products with alloocimene, polymers with fatty acids, polyols and polyether polyol (meth)acrylates **673-84-7D**, reaction products with maleic anhydride, polymers with fatty acids, polyols and polyether polyol (meth)acrylates  
(manuf. of varnishes contg., storage-**stable**, for lithog. printing inks for metals)
- IT **29570-58-9D**, polymers with oil-modified alkyd resins **62886-89-9D**, Aronix M 8060, polymers with oil-modified alkyd resins **77866-18-3D**, polymers with oil-modified alkyd resins **82727-34-2D**, polymers with oil-modified alkyd resins **115218-20-7D**, polymers with oil-modified alkyd resins  
(manuf. of varnishes contg., storage-**stable**, for lithog. printing inks, for metals)
- IT **56-81-5DP**, Glycerol, polymers with dicarboxylic acids, fatty acids of oils, and polyether polyol (meth)acrylates **85-44-9DP**, Phthalic anhydride, polymers with fatty acids, polyols and polyether polyol (meth)acrylates **110-44-1DP**, Sorbic acid, polymers with fatty acids, polyols and polyether polyol (meth)acrylates **115-77-5DP**, Pentaerythritol, polymers with dicarboxylic acids, fatty acids of oils, and polyether polyol (meth)acrylates **126-30-7DP**, Neopentyl glycol, polymers with dicarboxylic acids, fatty acids, and

polyether polyol (meth)acrylates 115461-14-8P  
(manuf. of, varnishes contg., storage-stable, for  
lithog. printing inks for metals)

IT 12597-69-2, Steel, uses and miscellaneous  
(oil-modified alkyd resin-contg. inks for, storage-stable  
, with good discoloration resistance)

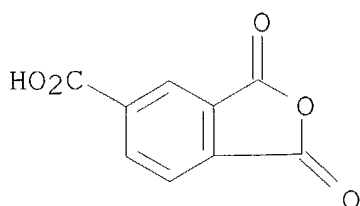
L65 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
1983:73959 Document No. 98:73959 Electroinsulating heat-resistant  
varnishes. Matulay, Dusan; Binova, Gabriela (Czech.). Czech. CS  
202970 B 19821015, 5 pp. (Slovak). CODEN: CZXXA9. APPLICATION:  
CS 1979-4196 19790618.

AB Poly(ester-imide) electroinsulation varnishes for elec. motor  
windings, withstanding permanent temp. stress .ltoreq.200.degree.,  
consist of a **nonphenolic** soln. of a resin contg. 15-40%  
arom. imide bonded by COOH groups to a polyester prepd. from  
isophthalic acid (I) (contg. .gtoreq.20% I), 5-20% satd. fatty  
acids, alkyl derivs. of arom. dicarboxylic acids, 5-40%  
tris(hydroxyethyl) isocyanurate (II) and other triols and diols,  
partially blocked polyisocyanate (25-50% on the resin) as a  
crosslinking agent, and 0.02-0.1% metal compds. or complexes as  
crosslinking catalysts. Thus, di-Me terephthalate 136, ethylene  
glycol 34, glycerol 46, II 92, and Zn acetate 0.18 g were  
transesterified at 160-80.degree. until 38 g MeOH was distd. off and  
n20 of the mixt. was 1.542-1.543, and 43 g mixt. of fatty acids and  
50 g I were added and heated to 220.degree. to give a polyester with  
acid no. 14-17 mg KOH/g. A mixt. of trimellitic anhydride 66,  
4,4'-diaminodiphenylmethane 34, and Cd(OAc)2.2H2O 0.84 g was added  
to the polyester at 190.degree. in 3 parts and imidation was carried  
out at 230.degree. to acid no. <10 mg KOH/g and OH concn. 3.8-4.8%.  
A 40% soln. of the resulting resin in cyclohexanone (III)  
[108-94-1] and xylene [1330-20-7] 1000, a 50% III soln. of Desmodur  
CT **Stable** [68456-07-5] 175, and Zn octoate [557-09-5] 1  
g gave an insulation varnish, which, after hardening at 120 and  
150.degree., had elec. strength 100-150 and 60-70 kV/mm, resp., and  
sp. resistance 1013-14 and 107-8 .OMEGA./mm at 23 and 210.degree.,  
resp.

IT 552-30-7D, polymers with diaminodiphenylmethane, di-Me  
terephthalate, ethylene glycol, fatty acids, glycerol, and  
tris(hydroxyethyl) isocyanurate  
(curable heat-resistant electroinsulating varnishes based on)

RN 552-30-7 HCAPLUS

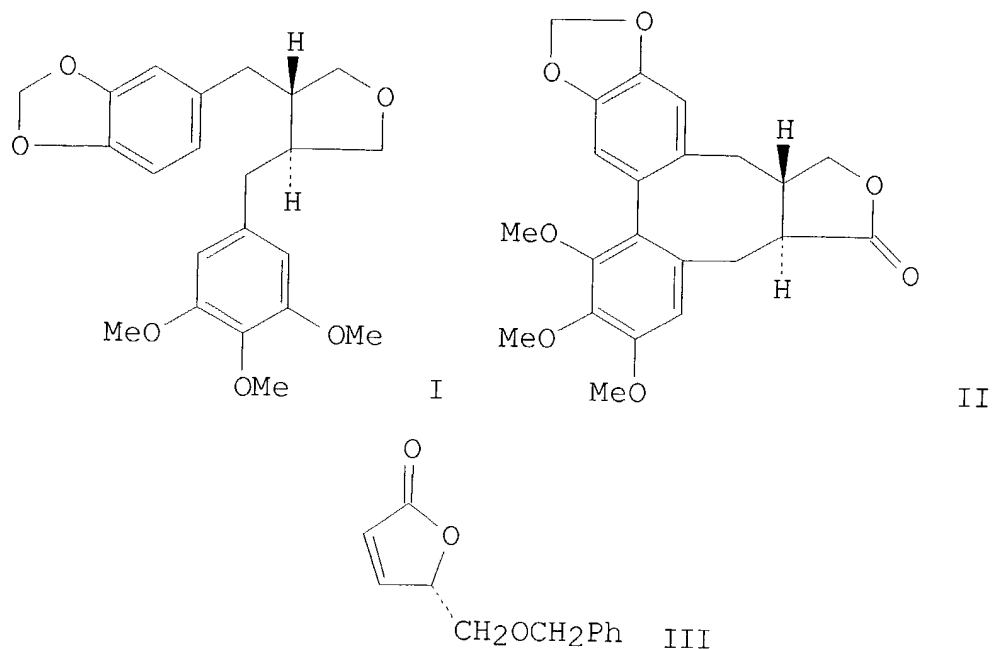
CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA  
INDEX NAME)



IC C09D005-25  
 CC 42-8 (Coatings, Inks, and Related Products)  
 IT 56-81-5D, polymers with diaminodiphenylmethane, di-Me terphthalate, ethylene glycol, fatty acids, isophthalic acid, trimellitic anhydride, and tris(hydroxyethyl) isocyanurate 101-77-9D, polymers with di-Me terephthalate, ethylene glycol, fatty acids, glycerol, isophthalic acid, trimellitic anhydride, and tris(hydroxyethyl) isocyanurate 107-21-1D, polymers with diaminodiphenylmethane, di-Me terephthalate, fatty acids, glycerol, isophthalic acid, trimellitic anhydride, and tris(hydroxyethyl) isocyanurate 120-61-6D, polymers with diaminodiphenylmethane, ethylene glycol, fatty acids, glycerol, isophthalic acid, trimellitic anhydride, and tris(hydroxyethyl) isocyanurate 121-91-5D, polymers with diaminodiphenylmethane, di-Me terephthalate, ethylene glycol, fatty acids, glycerol, trimellitic anhydride, and tris(hydroxyethyl) isocyanurate 552-30-7D, polymers with diaminodiphenylmethane, di-Me terephthalate, ethylene glycol, fatty acids, glycerol, and tris(hydroxyethyl) isocyanurate 839-90-7D, polymers with diaminodiphenylmethane, di-Me terephthalate, ethylene glycol, fatty acids, glycerol, and trimellitic anhydride  
 (curable heat-resistant electroinsulating varnishes based on)

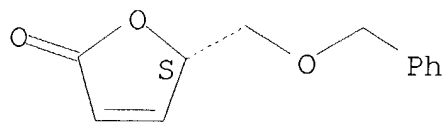
L65 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
 1980:180880 Document No. 92:180880 Asymmetric total synthesis of the antileukemic lignans (+)-trans-burseran and (-)-isostegane. Tomioka, Kiyoshi; Ishiguro, Tsuneo; Koga, Kenji (Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan). Journal of the Chemical Society, Chemical Communications (15), 652-3 (English) 1979. CODEN: JCCCAT. ISSN: 0022-4936.

GI



- AB (+)-trans-Burseran (I) and (-)-isostegane (II) were prepd. from the chiral butenolide (III) by a highly specific asym. path. III was converted to (+)-deoxypodorhizon (IV) by sequential conjugate addn. of trimethoxybenzaldehyde dithioacetal anion, redn. (Raney Ni),  $\text{LiAlH}_4$  redn.,  $\text{NaIO}_4$  oxidn., and Collins oxidn. **Nonphenolic** oxidative coupling of IV gave II. Sequential treatment of IV with  $\text{LiAlH}_4$  and  $p\text{-MeC}_6\text{H}_4\text{SO}_2\text{Cl}$  gave I.
- IT 72605-53-9P  
(prepn. of, as intermediate in prepn. of antileukemic lignan)
- RN 72605-53-9 HCAPLUS
- CN 2(5H)-Furanone, 5-[(phenylmethoxy)methyl]-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



- CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
- IT 72605-52-8P 72605-53-9P 72605-54-0P 72627-52-2P  
72627-53-3P 72627-54-4P 72690-16-5P  
(prepn. of, as intermediate in prepn. of antileukemic lignan)

L65 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
1977:407135 Document No. 87:7135 Laminated plastics. Inoue, Takayuki;  
Kakizaki, Tetsuji; Ochiuni, Masahide (Mitsubishi Petrochemical Co.,  
Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 52032080 19770310 Showa, 6  
pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1975-107877  
19750905.

AB Laminated products, with water vapor transmission .ltoreq.10 g/m2-24  
h and O transmission .ltoreq.200 mL/m2-24h-atm and useful for  
preservation of food, were prepd. by laminating a layer (A) of  
Arnite A 200 [poly(ethylene terephthalate)] (I) [25038-59-9] with a  
layer (B) contg. a polyolefin or a vinyl polymer modified with  
0.01-10 wt.% maleic anhydride (II) [108-31-6] to give a  
laminate with the thickness of A .ltoreq.50% that of B. Thus, 100  
parts polypropylene (III) [9003-07-0] was treated with 1.2  
parts II in the presence of 0.8 part Bz2O2 at 220.degree. in an  
extruder to give a product (IV). A blend (contg. 10 parts IV and 90  
parts III) and I were blow-molded together through a die to give a  
bottle with interlayer bond strength 0.5 kg/15mm, compared with 0  
kg/15 mm for a laminate of III with I.

IT 9002-88-4  
(laminates of maleic anhydride-contg., with poly(ethylene  
terephthalate), for food preservation)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT 9003-07-0  
(laminates of maleic anhydride-contg., with poly(ethylene  
terephthalate), for food preservation)

RN 9003-07-0 HCAPLUS

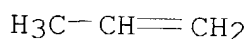
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

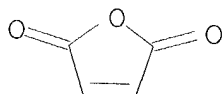
CRN 115-07-1

CMF C3 H6

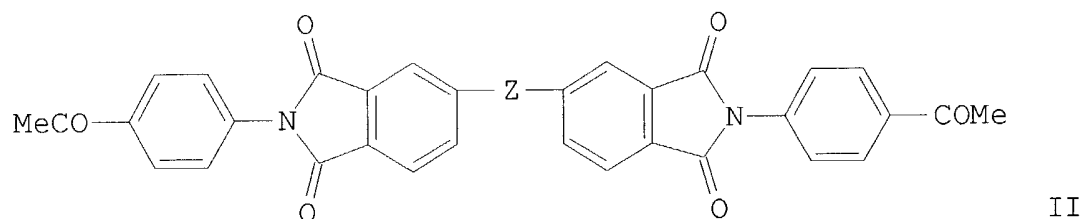
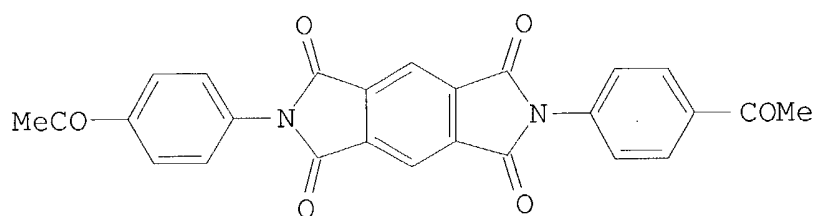




IT 108-31-6, uses and miscellaneous  
(laminates of polypropylene contg., with polyesters, for food  
preservation)  
RN 108-31-6 HCAPLUS  
CN 2,5-Furandione (9CI) (CA INDEX NAME)



IC B32B027-32  
CC 37-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 17  
IT Polyesters, uses and miscellaneous  
(laminates with polyolefins or vinyl **polymers**, for food  
**preservation**)  
IT 9002-88-4  
(laminates of maleic anhydride-contg., with poly(ethylene  
terephthalate), for food preservation)  
IT 9003-07-0 24937-78-8  
(laminates of maleic anhydride-contg., with poly(ethylene  
terephthalate), for food preservation)  
IT 108-31-6, uses and miscellaneous  
(laminates of polypropylene contg., with polyesters, for food  
preservation)  
IT 25038-59-9, uses and miscellaneous  
(laminates with polyolefins or vinyl **polymers**, for food  
**preservation**)  
  
L65 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
1977:44252 Document No. 86:44252 Bis(acetylimides) of aromatic  
tetracarboxylic acids and crosslinked polyimides based on them.  
Babenkova, E. A.; Tsygankova, T. S.; Zaitsev, B. A.; Matrosova, V.  
S.; Shtraikhman, G. A. (Inst. Vysokomol. Soedin., Leningrad, USSR).  
Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya,  
18(10), 746-9 (Russian) 1976. CODEN: VYSBAI. ISSN: 0507-5483.  
GI



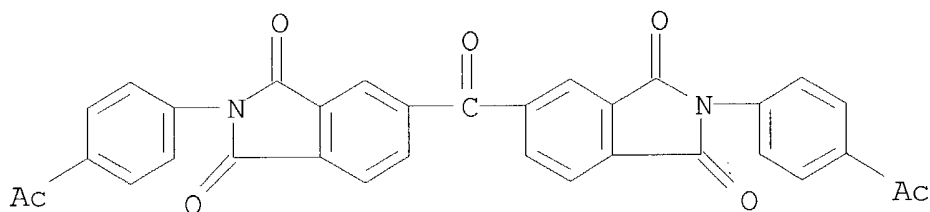
AB Crosslinked, thermally stable polymers were obtained by heating molten I and II ( $Z = \text{CO}, \text{O}, \text{CO}_2\text{CO}, m\text{-C}_6\text{H}_4\text{O}_2$ ) at gradually increasing temps. to 400.degree. during 7-8 h. The IR spectra of the **polymers preserved** the bands typical for the monomers, except for the Ac band; intensity of the latter decreased during the polymn. to a negligible value in hardened products. According to thermogravimetric data 5 and 10% wt. losses of the polymers occurred at 460-500 and 520-30.degree., resp., except for the polymer derived from II ( $Z = \text{CO}_2\text{CO}$ ) [61370-21-6], for which the corresponding temps. were 380 and 420.degree..

IT 61370-19-2P 61370-20-5P 61370-21-6P  
61370-22-7P

(prepn. of)

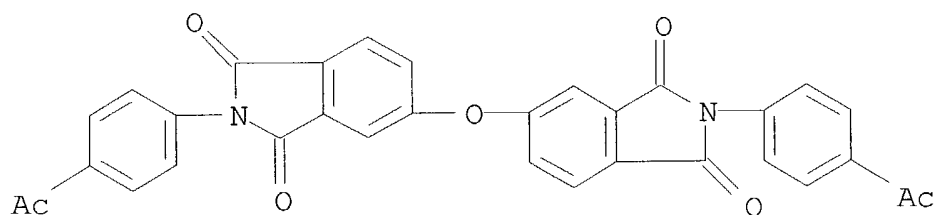
RN 61370-19-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,5'-carbonylbis[2-(4-acetylphenyl)-  
(9CI) (CA INDEX NAME)



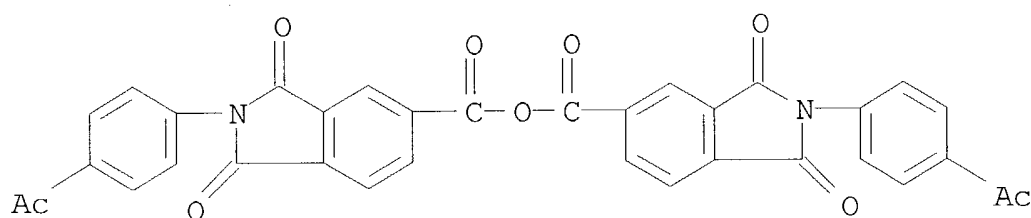
RN 61370-20-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,5'-oxybis[2-(4-acetylphenyl)- (9CI)  
(CA INDEX NAME)



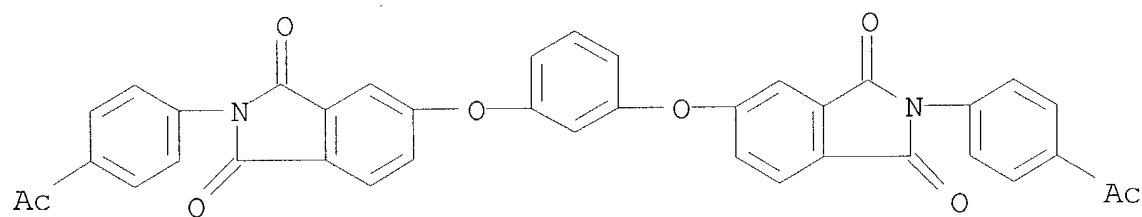
RN 61370-21-6 HCAPLUS

CN 1H-Isoindole-5-carboxylic acid, 2-(4-acetylphenyl)-2,3-dihydro-1,3-dioxo-, anhydride (9CI) (CA INDEX NAME)



RN 61370-22-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,5'-[1,3-phenylenebis(oxy)]bis[2-(4-acetylphenyl)- (9CI) (CA INDEX NAME)



CC 36-3 (Plastics Manufacture and Processing)

IT 61370-18-1P 61370-19-2P 61370-20-5P

61370-21-6P 61370-22-7P

(prepn. of)

L65 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1974:15754 Document No. 80:15754 Microbicides for polymer dispersions.

Boetsch, Franz; Braun, Helmut; Fink, Walter; Heller, Friedrich;

Wallhaeuser, Karl H. (Farbwerke Hoechst A.-G.). Ger. Offen. DE

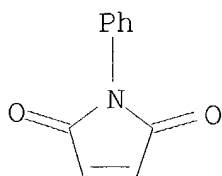
2207199 19730606, 12 pp. (German). CODEN: GWXXBX. APPLICATION: DE

1972-2207199 19720216.

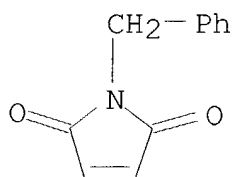
AB Aq. dispersion of polymers, e.g. Bu acrylate-styrene copolymer (I)

[25767-47-9], useful for coatings, were preserved by addn. of 0.1-0.5% antimicrobial maleimide derivs., e.g. N-phenylmaleimide (II) [941-69-5]. Thus, addn. of 0.2% II to a I dispersion (pH 7.4) reduced the no. of test microbes by the factor 102-104 in 14 days.

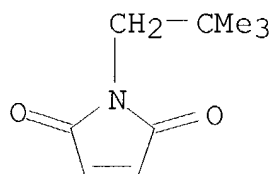
IT 941-69-5 1631-26-1 50906-67-7  
 (microbicides, for polymer dispersions)  
 RN 941-69-5 HCAPLUS  
 CN 1H-Pyrrole-2,5-dione, 1-phenyl- (9CI) (CA INDEX NAME)



RN 1631-26-1 HCAPLUS  
 CN 1H-Pyrrole-2,5-dione, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 50906-67-7 HCAPLUS  
 CN 1H-Pyrrole-2,5-dione, 1-(2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)



IC C09D  
 CC 36-6 (Plastics Manufacture and Processing)  
 ST microbicide polymer dispersion; **preservation**  
**polymer** dispersion; acrylate copolymer dispersion  
 microbicide; maleimide microbicide polymer dispersion  
 IT 941-69-5 1631-26-1 50906-67-7  
 (microbicides, for polymer dispersions)

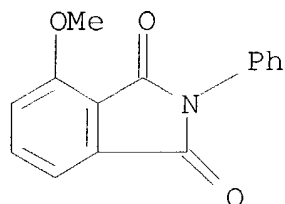
L65 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
1954:3624 Document No. 48:3624 Original Reference No. 48:691c-g  
Alkaloids of the plants of Papaveraceae family. XI. Oxidation of  
isothebaine. Kiselev, V. V.; Konovalova, R. A. (S. Ordzhonikidze  
All-Union Chem.-Pharm. Inst., Moscow). Zhurnal Obshchei Khimii, 22,  
2233-6 (Unavailable) 1952. CODEN: ZOKHA4. ISSN: 0044-460X.

AB cf. C.A. 43, 6207h. Oxidation of 3 g. isothebaine in H<sub>2</sub>O with 21.9  
g. KMnO<sub>4</sub> at room temp., then at 50-60.degree. gave 1.91 g. crude  
product, which yielded 0.3 g. 3-methoxyphthalic anhydride, m.  
159-60.degree., after sublimation. This heated with PhNH<sub>2</sub> in MePh  
gave 3-methoxyphthalanilic acid, melting with foaming 163.degree. on  
rapid heating, m. 159-60.degree. on slow heating; on remelting the  
product m. 187-9.degree., indicating formation of  
3-methoxyphthalanil. Oxidation of 4.35 g. the Me ether of  
isothebaine methosulfate by 21.84 g. KMnO<sub>4</sub> in 3-4% soln., as above,  
gave 0.22 g. 3-methoxyphthalic anhydride and 0.58 g. product, m.  
240-1.degree., on slow heating, decomp. 175-80.degree., on rapid  
heating, remelting at 240-1.degree.; this substance C<sub>18</sub>H<sub>16</sub>O<sub>9</sub> is  
apparently 2,3,2'-trimethoxy-5,6,6'-tricarboxybiphenyl. Treatment  
of 4 g. corydine-HCl salt with 12.8 ml. Me<sub>2</sub>SO<sub>4</sub> in 30% NaOH gave the  
Me ether of corydine methosulfate, m. 247-8.degree. (from EtOH),  
which with aq. KI gave the methiodide of corydine, decomp.,  
248-9.degree. (from EtOH). Oxidation of the methosulfate with KMnO<sub>4</sub>  
as above gave an acid, C<sub>19</sub>H<sub>18</sub>O<sub>10</sub>, apparently 5,6,5',6'-  
tetramethoxybiphenyl-2,3,3'-tricarboxylic acid, m. about  
125.degree., with foaming and immediate resolidification and  
remelting at 229-30.5.degree.; on slow heating the material shrinks  
at 120-5.degree. and m. 229-30.5.degree.; pure material on slow  
heating m. 230-1.degree.. The formation of 3-methoxyphthalic acid  
from isothebaine shows the locations of the HO and MeO groups in the  
benzene ring of aporphine skeleton (in the tetrahydroisoquinoline  
fraction); 1 MeO in the other benzene ring is in 1 or 4 position.  
In oxidations with KMnO<sub>4</sub> of **nonphenolic** aporphine  
alkaloids the benzene ring in the tetrahydroisoquinoline part of the  
structure is **less stable to oxidation**  
in alk. medium than the other benzene ring.

IT 3039-43-8, Phthalimide, 3-methoxy-N-phenyl-  
14963-96-3, Phthalic anhydride, 3-methoxy-  
(prepn. of)

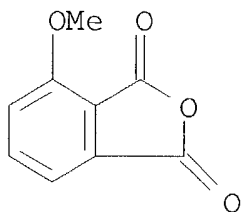
RN 3039-43-8 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 4-methoxy-2-phenyl- (9CI) (CA INDEX  
NAME)



RN 14963-96-3 HCAPLUS

CN 1,3-Isobenzofurandione, 4-methoxy- (9CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 3039-43-8, Phthalimide, 3-methoxy-N-phenyl-

14963-96-3, Phthalic anhydride, 3-methoxy-  
(prepn. of)

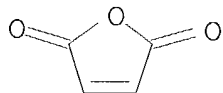
L65 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

1953:34985 Document No. 47:34985 Original Reference No. 47:5951f-h  
Alkaloids of Menispermaceae plants. LXXXIV. Hasubanonine. 1. Kondo,  
Heisaburo; Satomi, Masakichi; Odera, Toshiko (ITSUU Lab., Tokyo).  
Ann. Rept. ITSUU Lab., 2, 1-7;35-43 (English) 1951.

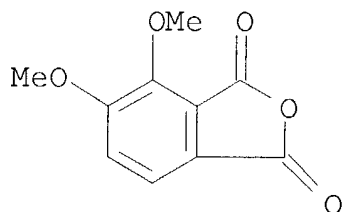
AB A new **nonphenolic** and the 9th base sepd. from *Stephania japonica*, named **hausbanonine (I)** (after the Japanese name of the plant), crystd. from Me-OH in colorless prisms, m. 50-60.degree. (70-5.degree. after repeated recrystn.; **stabilized** at 116.degree. by drying in vacuo), having the compn. C<sub>21</sub>H<sub>29</sub>O<sub>5</sub>N, contg. 4 MeO groups (2 of which are most likely at the 1,2-positions in the 1st C<sub>6</sub>H<sub>6</sub> ring of phenanthrene because I was oxidized to hemipic anhydride) and a CO<sub>2</sub>H group (estd. from the oxime), and easily converted to nitrate, picrate, and HBr salt. I.MeI was decompd. by heating with MeOH-KOH to a methine base contg. (MeO)<sub>3</sub> and a phenolic O, which was acetolyzed (not successfully by the Hofmann reaction) with Ac<sub>2</sub>O to volatile and nonvolatile amines (the 1st isolated as complex aurate of Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>OH through the HCl salt, the 2nd, as the Ac deriv. through the methiodide) and a non-N neutral substance, m. 123-4.degree., identified by its color reactions and spectrograph as trimethoxymonoacetoxypheanthrene (I was also dry-distd. with Zn dust to phenanthrene). Hence I seems to have a sinomenine

structure. The positions of the remaining (MeO)<sub>2</sub> and CO<sub>2</sub>H are still undetd.

IT 108-31-6, Maleic anhydride  
(adducts, with protostephanine and its derivs.)  
RN 108-31-6 HCAPLUS  
CN 2,5-Furandione (9CI) (CA INDEX NAME)



IT 1567-56-2, Hemipic anhydride  
(formation from hasubanonine)  
RN 1567-56-2 HCAPLUS  
CN 1,3-Isobenzofurandione, 4,5-dimethoxy- (9CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)  
IT 108-31-6, Maleic anhydride  
(adducts, with protostephanine and its derivs.)  
IT 1567-56-2, Hemipic anhydride  
(formation from hasubanonine)

=> d l66 1-13 ti

L66 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Alkyl polyglycoside surfactant systems for agriculturally active compounds

L66 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Action modes of unconventional **polymer** heat **stabilizers** - a comparison between 3-arylbenzofuran-2-ones and **phthalides**

L66 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Thermosensitive recording material with high-sensitivity, high-contrast and superior light-fastness

- L66 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI 3-**Benzalphthalides** as UV stabilizers for aromatic polyesters
- L66 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI New routes to poly(benzylenebenzimidazoles)
- L66 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Synthesis and characteristics of poly(bisdichloromaleimides)
- L66 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Polyimidines. 7. Synthesis and the polymerization of 3-(p-aminophenyl)-3-**phenylphthalide**
- L66 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Synthesis and study of crosslinked polymers from aliphatic bis(maleimides) and cardo diamines
- L66 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Poly(urethanehydrazides) and poly(urethanesemicarbazides) from hydroxymethyl derivatives of acetyl- and aroylhydrazines
- L66 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Benzalphthalimidines and related compounds. I. Their synthesis, some reactions, and possible use in **polymer stabilization**
- L66 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Heat-**stable polymers**. V. Poly(isoindoloquinazolinediones) and polymers with related structures
- L66 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Pressure-sensitive copy materials
- L66 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Stabilizers for polyvinyl chloride

=> d l66 2 4 10 11 13 cbib abs hitstr hitind

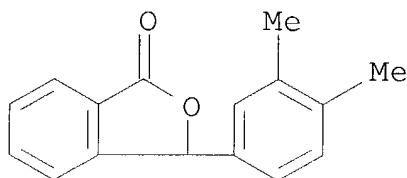
- L66 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
2001:220740 Document No. 135:20232 Action modes of unconventional **polymer heat stabilizers** - a comparison between 3-arylbenzofuran-2-ones and **phthalides**. Krohnke, C.; Brede, O.; Epacher, E.; Turcsanyi, B.; Pukanszky, B. (Business Line Polymer Additives, Clariant Huningue S.A., Huningue, F-68331, Fr.).

Phthalides as  
polymer  
stabilizers



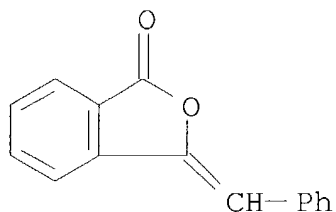
Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 42(1), 388-389 (English) 2001. CODEN: ACPPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

- AB Both 3-aryl-benzofuranones (lactones) and 3-aryl-(3H)-isobenzofuran-1-ones (**phthalides**) are effective **polymer stabilizers**, but their performance during polymer processing differs distinctly. To clarify mechanistic differences in the reaction, time resolved methods in soln. at room temp. were used to study radical transients within first nano- and microsecond time intervals for mixts. of stabilizer with polypropylene (Eltex PP PFH-100) and HDPE (Tipelin FA-381). Pulse radiolysis was used to generate radicals by following the sequences of upcoming intermediate products. Lactones (0-10%) in HDPE give rise to partial inversion of degrdn. with chain scission as predominant reaction whereas under the same conditions **phthalides** maintain initial MFI [melt flow index].
- IT 200959-31-5, 3-(3,4-Dimethylphenyl)-1(3H)-isobenzofuranone (radiochem. radical reaction mechanism of aryl-benzofuranone and **phthalide** heat stabilizers for polyolefins)
- RN 200959-31-5 HCAPLUS
- CN 1(3H)-Isobenzofuranone, 3-(3,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

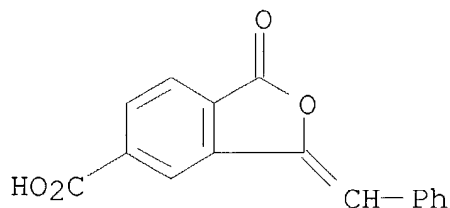


- CC 37-2 (Plastics Manufacture and Processing)
- ST lactone **phthalide** heat stabilizer mechanism polyolefin processing; benzofuranone stabilizer polypropylene degrdn chain scission
- IT Heat stabilizers (radiochem. radical reaction mechanism of aryl-benzofuranone and **phthalide** heat stabilizers for polyolefins)
- IT Polymer degradation (radiochem.; radiochem. radical reaction mechanism of aryl-benzofuranone and **phthalide** heat stabilizers for polyolefins)
- IT Polymer chains (scission; radiochem. radical reaction mechanism of aryl-benzofuranone and **phthalide** heat stabilizers for polyolefins)

- IT 66737-86-8, 5,7-Di-tert-butyl-3-phenyl-3H-benzofuran-2-one  
200959-31-5, 3-(3,4-Dimethylphenyl)-1(3H)-isobenzofuranone  
(radiochem. radical reaction mechanism of aryl-benzofuranone and  
**phthalide** heat stabilizers for polyolefins)
- IT 9003-07-0, Eltex PHF-100 25213-02-9, Tipelin FA-381-10  
(radiochem. radical reaction mechanism of aryl-benzofuranone and  
**phthalide** heat stabilizers for polyolefins)
- L66 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN  
1987:638010 Document No. 107:238010 3-**Benzalphthalides** as UV  
stabilizers for aromatic polyesters. Scholl, Thomas; Serini,  
Volker; Rathmann, Dietrich; Savage, Ross; Kircher, Klaus (Bayer  
A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3601900 A1 19870730, 4 pp.  
(German). CODEN: GWXXBX. APPLICATION: DE 1986-3601900 19860123.
- AB 3-**Benzalphthalide** (I) and substituted derivs. are  
effective UV stabilizers for arom. polyesters, polycarbonates, and  
polyester-polycarbonates. Heating phthalic anhydride 1000,  
PhCH<sub>2</sub>CO<sub>2</sub>H 1100, and NaOAc 26 g at 220-240.degree. for 6 h with  
distn. of H<sub>2</sub>O gave I. A bisphenol A-isophthalic acid-terephthalic  
acid-phosgene copolymer contg. 1% I, exposed as a 0.2-mm film to a  
Weatherometer, was colorless after 0 and 72 h; vs. light yellow and  
yellow, resp., with 2-hydroxy-4-methoxybenzophenone in place of I.
- IT 575-61-1, 3-**Benzalphthalide** 71594-90-6  
111672-29-8 111672-30-1  
(light stabilizers, for arom. polyesters)
- RN 575-61-1 HCAPLUS
- CN 1(3H)-Isobenzofuranone, 3-(phenylmethylene)- (9CI) (CA INDEX NAME)

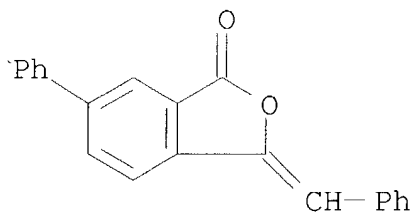


- RN 71594-90-6 HCAPLUS
- CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1-oxo-3-  
(phenylmethylene)- (9CI) (CA INDEX NAME)



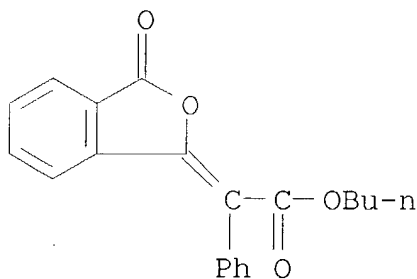
RN 111672-29-8 HCAPLUS

CN 1(3H)-Isobenzofuranone, 6-phenyl-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



RN 111672-30-1 HCAPLUS

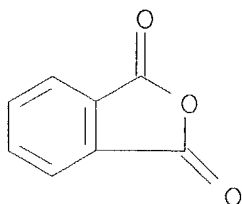
CN Benzeneacetic acid, .alpha.-(3-oxo-1(3H)-isobenzofuranylidene)-, butyl ester (9CI) (CA INDEX NAME)



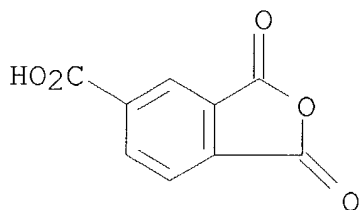
IT 85-44-9, Phthalic anhydride 552-30-7  
(reaction of, with phenylacetic acid)

RN 85-44-9 HCAPLUS

CN 1,3-Isobenzofurandione (9CI) (CA INDEX NAME)



RN 552-30-7 HCAPLUS  
 CN 5-Isobenzofuran-1-one-3-carboxylic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IC ICM C08K005-15  
 ICS C08L067-00; C08L069-00  
 ICA C08J005-18; C09K015-06; C07D307-88  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 27  
 ST light stabilizer polyester arom; polycarbonate arom light stabilizer; **benzalphthalide** light stabilizer; **phthalide** benzal light stabilizer; phthalic anhydride reaction phenylacetic acid  
 IT Light stabilizers  
     (**benzalphthalide** derivs., for arom. polyesters)  
 IT Polycarbonates, uses and miscellaneous  
 Polyesters, uses and miscellaneous  
     (arom., light stabilizers for, **benzalphthalide** derivs. as)  
 IT Polyesters, uses and miscellaneous  
     (polycarbonate-, arom., light stabilizers for, **benzalphthalide** derivs. as)  
 IT Polycarbonates, uses and miscellaneous  
     (polyester-, arom., light stabilizers for, **benzalphthalide** derivs. as)  
 IT 24936-68-3, Bisphenol A-carbonic acid copolymer, sru, uses and miscellaneous 25037-45-0, Bisphenol A-carbonic acid **copolymer** 89001-40-1, Bisphenol A-isophthalic acid-phosgene-terephthalic acid **copolymer**  
     (light stabilizers for, **benzalphthalide**)

derivs. as)

IT 575-61-1, 3-Benzalpthalide 71594-90-6

111672-29-8 111672-30-1

(light stabilizers, for arom. polyesters)

IT 85-44-9, Phthalic anhydride 552-30-7 4445-58-3,

Biphenyl-3,4-dicarboxylic acid

(reaction of, with phenylacetic acid)

L66 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

1971:476367 Document No. 75:76367 Benzalpthalimidines and related compounds. I. Their synthesis, some reactions, and possible use in **polymer stabilization**. Hannout, I. B.; Hassan, E. A.; Islam, A. M.; Ismail, I. M. (Fac. Eng., Al-Azhar Univ., Cairo, Egypt). United Arab Republic Journal of Chemistry, 13(2), 199-212 (English) 1970. CODEN: UAJCAZ. ISSN: 0372-3704.

GI For diagram(s), see printed CA Issue.

AB Benzalpthalimidines (I), useful as stabilizers for poly(vinyl chloride), were prepd. by condensation of 3-benzalpthalide with aromatic amines in HOAc and some of their corresponding bromides, hydrazides, and phthalimides and derivs. were also prepd. For example, a mixt. of 0.1 mole aniline and 0.1 mole 3-benzalpthalide was treated 8-10 hr with 2 g NaOAc in 400 ml HOAc, giving 2-phenyl-3-benzalpthalimidine (I, R = Ph), of which 0.01 mole was brominated with 0.01 mole Br in CCl<sub>4</sub>, giving 79% of the corresponding bromobenzalpthalimidine.

IT 4679-92-9P 5383-82-4P 31604-39-4P

33238-13-0P 33238-14-1P 33238-15-2P

33238-16-3P 33238-17-4P 33238-18-5P

33238-19-6P 33238-20-9P 33238-32-3P

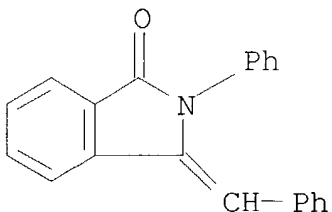
33238-33-4P 33238-34-5P 33238-35-6P

33256-90-5P

(prepn. of)

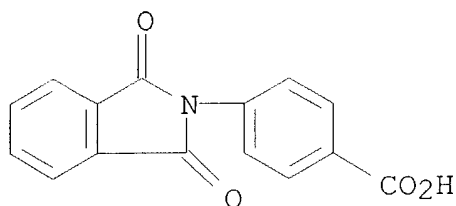
RN 4679-92-9 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-phenyl-3-(phenylmethylene)- (9CI)  
(CA INDEX NAME)



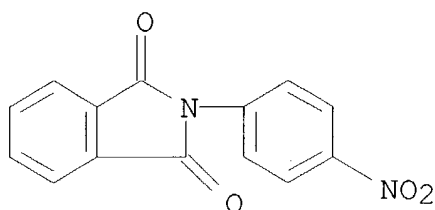
RN 5383-82-4 HCAPLUS

CN Benzoic acid, 4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (9CI) (CA INDEX NAME)



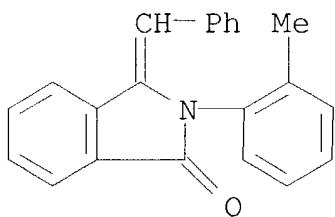
RN 31604-39-4 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



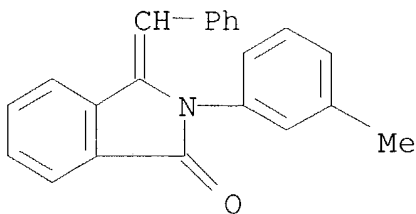
RN 33238-13-0 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(2-methylphenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



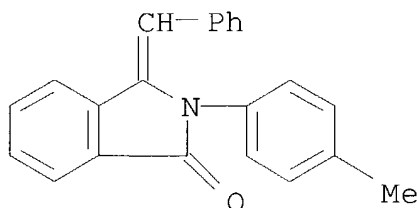
RN 33238-14-1 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(3-methylphenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



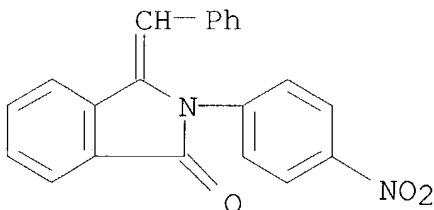
RN 33238-15-2 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(4-methylphenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



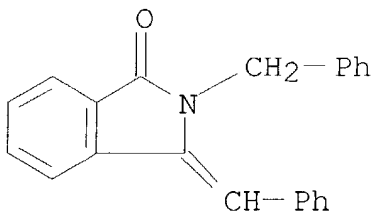
RN 33238-16-3 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(4-nitrophenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



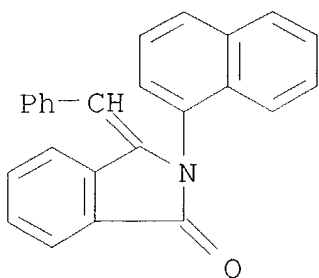
RN 33238-17-4 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(phenylmethyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



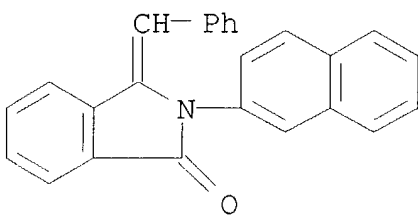
RN 33238-18-5 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(1-naphthalenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



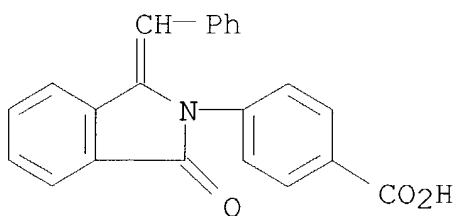
RN 33238-19-6 HCAPLUS

CN 1H-Isoindol-1-one, 2,3-dihydro-2-(2-naphthalenyl)-3-(phenylmethylene)- (9CI) (CA INDEX NAME)



RN 33238-20-9 HCAPLUS

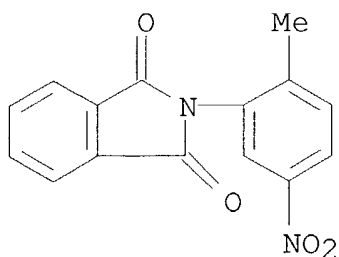
CN Benzoic acid, 4-[1,3-dihydro-1-oxo-3-(phenylmethylene)-2H-isoindol-2-yl]- (9CI) (CA INDEX NAME)



RN 33238-32-3 HCAPLUS

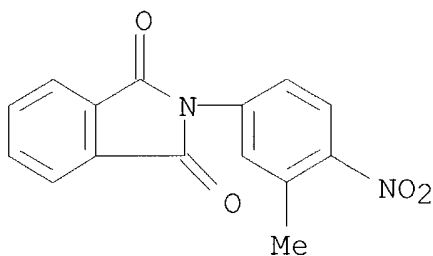
CN 1H-Isoindole-1,3(2H)-dione, 2-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)





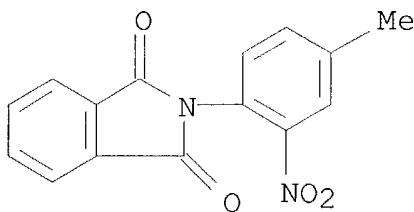
RN 33238-33-4 HCAPLUS

CN Phthalimide, N-(4-nitro-m-tolyl)- (8CI) (CA INDEX NAME)



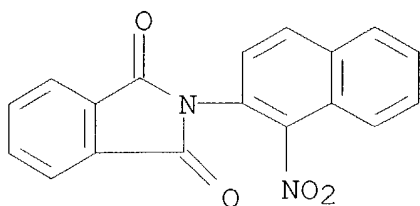
RN 33238-34-5 HCAPLUS

CN Phthalimide, N-(2-nitro-p-tolyl)- (7CI, 8CI) (CA INDEX NAME)



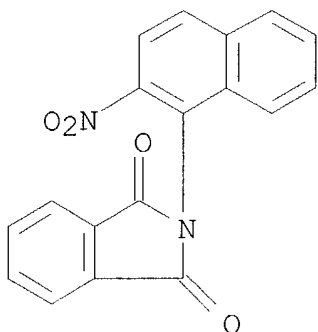
RN 33238-35-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(1-nitro-2-naphthalenyl)- (9CI) (CA INDEX NAME)



RN 33256-90-5 HCAPLUS

CN Phthalimide, N-(2-nitro-1-naphthyl)- (8CI) (CA INDEX NAME)



CC 25 (Noncondensed Aromatic Compounds)

IT 4679-92-9P 5383-82-4P 19732-63-9P

31604-39-4P 33238-13-0P 33238-14-1P

33238-15-2P 33238-16-3P 33238-17-4P

33238-18-5P 33238-19-6P 33238-20-9P

33238-21-0P 33238-22-1P 33238-23-2P 33238-24-3P 33238-25-4P

33238-26-5P 33238-27-6P 33238-28-7P 33238-29-8P 33238-30-1P

33238-32-3P 33238-33-4P 33238-34-5P

33238-35-6P 33238-36-7P 33238-37-8P 33238-38-9P

33238-39-0P 33238-40-3P 33238-41-4P 33256-87-0P 33256-89-2P

33256-90-5P

(prepn. of)

L66 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

1967:517374 Document No. 67:117374 Heat-stable

**polymers.** V. Poly(isoindoloquinazolinonediones) and polymers with related structures. Rabilloud, Guy; Sillion, Bernard; De Gaudemaris, Gabriel (C.E.N., Grenoble, Fr.). Makromolekulare Chemie, 108, 18-51 (French) 1967. CODEN: MACEAK. ISSN: 0025-116X.

GI For diagram(s), see printed CA Issue.

AB AcNMe<sub>2</sub> (25 ml.) contg. 2.72 g. bisanthranilic acid and 2.96 g. phthalic anhydride was kept 30 min. at ambient temp., then refluxed for 6 hrs. to give 3.35 g. 4,4'-diphthalimidobiphenyl-3,3'-

dicarboxylic acid, m. 391.degree.. The same acid was prepd. by heating 500 mg. 4,4'-diphthalimido-3,3'-biphenyldicarboxamide and 15 g. polyphosphoric acid 3 hrs. at 200-20.degree.. The above acid (8.2 g.) was added in portions to 90 ml. H<sub>2</sub>O and 15.6 g. Na<sub>2</sub>CO<sub>3</sub>, the temp. was raised to 70.degree., 13.8 g. p-ClSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me was added in 45 min., the mixt. was heated 30 min. at 70-5.degree., heated to 95.degree., and filtered rapidly to give 16.2 g. 4,4'-bis(p-toluenesulfonamido)biphenyl-3,3'-dicarboxylic acid (I), m. 309-10.degree.. Similarly prepd. was 2,5-bis(p-toluenesulfonamido)terephthalic acid. A soln. of 8.1 g. I in 100 ml. C<sub>6</sub>H<sub>6</sub> was treated with 7 g. PCl<sub>5</sub>, stirred 1.5 hrs. at 50.degree., cooled to ambient temp., and evapd. to dryness. The residue was dissolved in 120 ml. C<sub>6</sub>H<sub>6</sub> and treated 2 hrs. with NH<sub>3</sub> to give 7 g. 4,4'-bis(p-toluenesulfonamido)biphenyl-3,3'-dicarboxamide (II), m. 332.degree.. Similarly prepd. was 2,5-bis(p-toluenesulfonamido)terephthalamide. II (7 g.) in 50 ml. concd. H<sub>2</sub>SO<sub>4</sub> was heated for 15 min. at 100.degree., poured over 400-500 g. crushed ice, and neutralized with 12N aq. NH<sub>3</sub> to give 86% 4,4'-diaminobiphenyl-3,3'-dicarboxamide (III), m. 340.degree.. Similarly prepd. was 2,5-diaminoterephthalamide, m. 300.degree.. A mixt. of 20 ml. AcNMe<sub>2</sub> and 3.7 g. phthalic anhydride was treated with 3.4 g. anthranilamide added in 4 portions, stirred 1 hr. at ambient temp., and dild. with H<sub>2</sub>O to give 6.7 g. 2-carbamoyl-N-phenylphthalamic acid, m. 212.degree.. This acid (2.8 g.) and 26 ml. 1:1 Ac<sub>2</sub>O-pyridine was kept overnight and filtered to give 1.7 g. 2-phthalimidobenzamide, m. 239.degree.. The same product was obtained by cyclization with dicyclohexylcarbodiimide (IV) or by heating the acid in HCONMe<sub>2</sub>. Phthalanilic acid (2.4 g.) in 25 ml. AcNMe<sub>2</sub> was treated with 2.06 g. III in 10 ml. AcNMe<sub>2</sub> and kept overnight to give 3-phenyliminophthalide, m. 112-13.degree.. Cyclization of 2-phthalimidobenzamide by heating, Ac<sub>2</sub>O, or polyphosphoric acid gave 5H,11H-isoindolo[2,1-a]quinazoline-5,11-dione, m. 242.degree.. Anthranilamide (2.72 g.) in 15 ml. HCONMe<sub>2</sub> was treated with 2.18 g. pyromellitic dianhydride added in small portions, kept 1 hr. at ambient temp., and filtered to give 2.6 g. 4,6-bis[N-(2-carbamoylphenylphenylcarbamoyl)]isophthalic acid or 2,5-bis[N-(2-carbamoylphenylphenylcarbamoyl)]terephthalic acid. A suspension of this compd. (2 g.) in 15 ml. 1:1 Ac<sub>2</sub>O-pyridine was stirred for 7 hrs. and kept 48 hrs. at room temp. to give 1.35 g. N,N'-bis(2-carbamoylphenyl)pyromellitide, m. >400.degree.. This compd. (0.7 g.) was heated for 4 hrs. at 300.degree./0.02 mm. to give 0.5 g. of a residue, m. 444.degree., which was identified as 5H,9H,15H,17H-bisquinazolino[1,2-a:1',2'-a']benzo[1,2-c:5,4-c']dipyrrole-5,9,15,17-tetrone (IVa or IVb). Anthranilamide (0.02 mole) was condensed with 0.01 mole diphenyl ether 3,3',4,4'-tetracarboxylic acid dianhydride (V) to give a condensation product, m. 250.degree., which was treated with Ac<sub>2</sub>O-pyridine as above to give 4,4'-oxybis(2-phthalimidobenzamide),

m. 239.degree.. Thermal treatment of this compd. gave VI (X = O), m. 228.degree.. Condensation of anthranilamide and benzophenone-3,3',4,4'-tetracarboxylic acid dianhydride (VII) gave a diacid, m. 325.degree., which was treated with Ac2O-pyridine to give N,N'-di-2-carbamoylbenzophenone-3,3',4,4'-tetracarboxylic diimide, m. 298.degree.. The latter was subjected to thermal treatment to give VI (X = CO), m. 268.degree.. A soln. of 2.96 g. phthalic anhydride in 30 ml. HCONMe2 was treated with 2.7 g. III added in portions and stirred 2 hrs. at ambient temp. to give 4,4'-bis(2-carboxybenzamido)biphenyl-3,3'-dicarboxamide, m. >400.degree.. This compd. was treated with Ac2O-pyridine to give 4,4'-diphthalimidobiphenyl-3,3'-dicarboxamide, m. >400.degree., which was heated in vacuo to give 6H,6',12H,12'H-8,8'-bis(isoindolo[2,1-a]quinazoline)-6,6',12,12'-tetrone, m. >400.degree.. A soln. of 0.97 g. 2,5-diaminoterephthalamide in 20 ml. HCONMe2 was treated with 1.48 g. phthalic anhydride and stirred overnight at ambient temp. to give 2.8 g. 2,5-bis(2-carbobenzamido)terephthalamide, m. >400.degree.. This compd. (1.4 g.) in 15 ml. AcNMe2 was treated with 1.3 g. IV in 10 ml. AcNMe2 and stirred for 15 hrs. to give 2,5-diphthalimidoterephthalamide, m. >400.degree., which was heated as above to give 6H,9H,15H,18H-isoindolo[2,1 - a]isoindolo[1',2':2,3]pyrimido[4,5 - g]quinazoline - 6,9,15,18-tetrone, m. >500.degree.. A mixt. of 0.5406 g. III and 0.4363 g. pyromellitic dianhydride was kept overnight under argon, mixed with 4.7 ml. HCONMe2, stirred 5 hrs., and pptd. in Me2CO to give a III-pyromellitic dianhydride copolymer (VII), .eta.inh (inherent viscosity) 0.92 (0.5% at 30.degree.). VII in 20 ml. AcNMe2 was stirred 15 hrs., treated with 2.5 g. IV in 10 ml. AcNMe2, stirred overnight, and dild. with ether to give a polyimide-amide, .eta.inh 0.84 (0.5% HCONMe2). VII was heated to 250.degree. at 2.degree./min., kept 30.degree. min. at this temp., heated to 400.degree. at 3.degree./min., and kept 30 min. at this temp. to give a 5H,9H,15H,17H-bisquinazolino[1,2-a:1',2'-a']benzo[1,2-c:5,4-c']dipyrrole-5,9,15,17-tetrone polymer, .eta.inh 0.63 (0.5% in H2SO4). Similarly, a III-VII copolymer was cyclized to a polyimide-amide, .eta.inh 0.38 (0.5% in AcNMe2) and treated thermally to give an 8,8'-oxybis(5H,11H-isoindolo[2,1-a]quinazoline-5,11-dion-1-yl) polymer, .eta.inh 0.33 (0.5% in concd. H2SO4). Also, a III-V copolymer, .eta.inh 0.7 (0.5% in HCONMe2) was cyclized to a polyimide-amide, .eta.inh 0.44 (0.5% AcNMe2) and treated thermally to give an 8,8'-oxybis(5H,11H-isoindolo[2,1-a]quinazoline-5,11-dion-1-yl) polymer, .eta.inh 0.52 (0.5% in concd. H2SO4). A pyromellitic dianhydride-2,5-diaminoterephthalamide copolymer, .eta.inh 0.70 (0.5% Me2SO) was cyclized to the polyimide-amide, .eta.inh 0.47 (0.2% Me2SO), and treated thermally to give a ladder polymer, .eta.inh 0.49 (0.5% H2SO4). Cf. CA 64: 19810c.

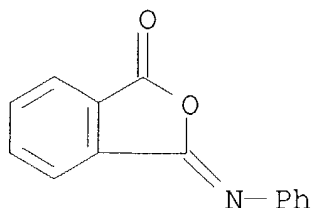
IT 487-42-3P 18257-48-2P 18257-55-1P  
18257-83-5P 18257-84-6P 18257-86-8P

18492-13-2P

(prepn. of)

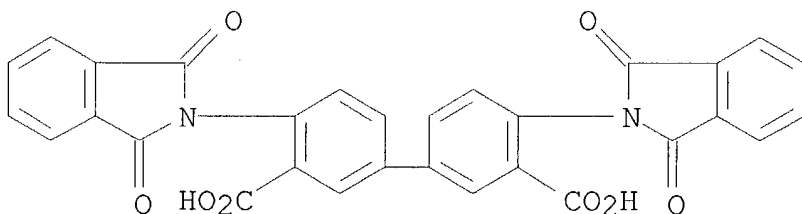
RN 487-42-3 HCAPLUS

CN 1(3H)-Isobenzofuranone, 3-(phenylimino)- (9CI) (CA INDEX NAME)



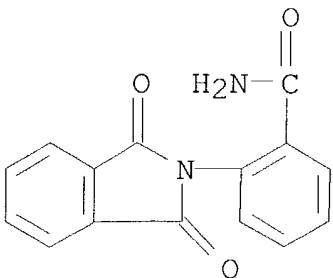
RN 18257-48-2 HCAPLUS

CN 3,3'-Biphenyldicarboxylic acid, 4,4'-diphthalimido- (8CI) (CA INDEX NAME)



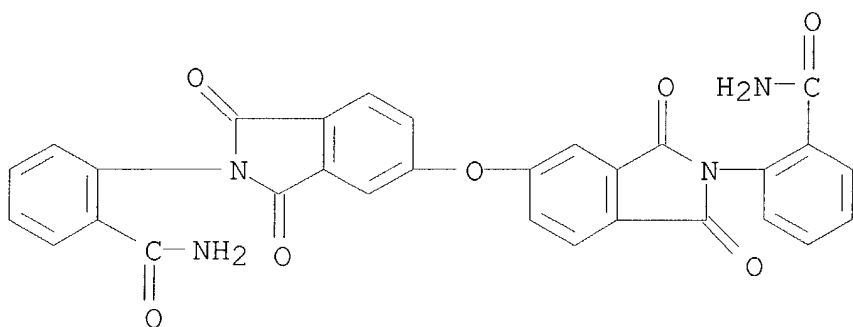
RN 18257-55-1 HCAPLUS

CN Benzamide, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (9CI) (CA INDEX NAME)

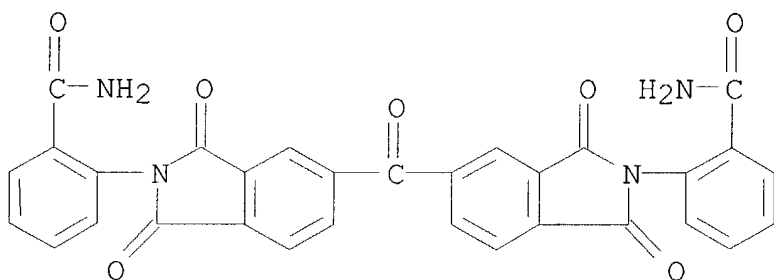


RN 18257-83-5 HCAPLUS

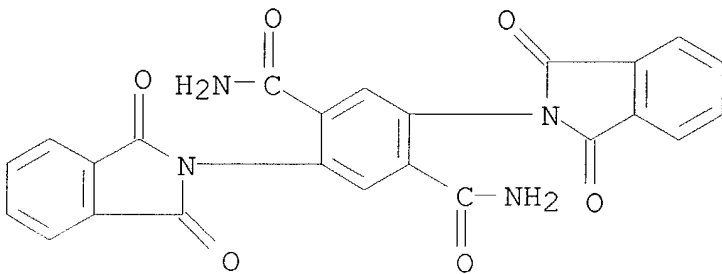
CN Benzamide, 2,2'-[oxybis(1,3-dioxo-2,5-isoindolinediyl)]bis- (8CI) (CA INDEX NAME)



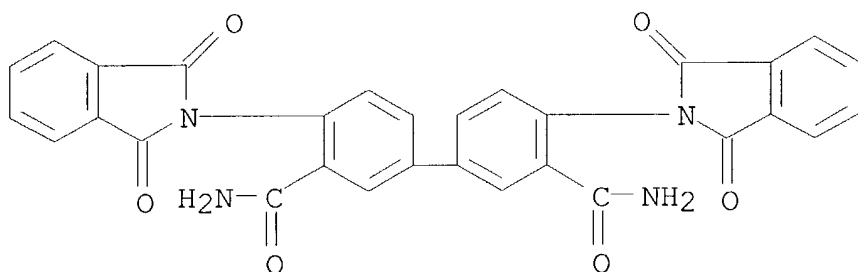
RN 18257-84-6 HCAPLUS  
 CN Benzamide, 2,2' [carbonylbis(1,3-dioxo-2,5-isoindolinediyl)]bis-  
 (8CI) (CA INDEX NAME)



RN 18257-86-8 HCAPLUS  
 CN Terephthalamide, 2,5-diphthalimido- (8CI) (CA INDEX NAME)



RN 18492-13-2 HCAPLUS  
 CN 3,3'-Bibenzamide, 6,6'-diphthalimido- (8CI) (CA INDEX NAME)



CC 35 (Synthetic High Polymers)

ST ISOINDOLOQUINAZOLINEDIONE POLYMERS; QUINAZOLINEDIONES POLYISOINDOLO;  
POLYISOINDOLOQUINAZOLINEDIONES; HEAT **STABLE**  
**POLYMERS**

IT **Polymers**, preparation  
(heat-stable)

IT **487-42-3P** 7486-17-1P 15420-64-1P **18257-48-2P**  
18257-49-3P 18257-51-7P 18257-52-8P 18257-54-0P  
**18257-55-1P** 18257-78-8P 18257-79-9P 18257-80-2P  
18257-82-4P **18257-83-5P** **18257-84-6P**  
18257-85-7P **18257-86-8P** 18257-88-0P 18490-48-7P  
18492-12-1P **18492-13-2P** 18492-14-3P 18492-15-4P  
28930-24-7P 28930-25-8P 32144-05-1P  
(prepn. of)

L66 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

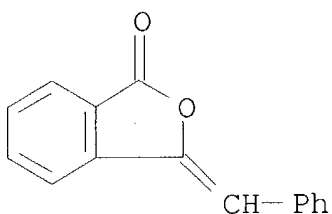
1952:34512 Document No. 46:34512 Original Reference No.

46:5882h-i,5883a Stabilizers for polyvinyl chloride. Rosenberg, A.  
Kunststoffe, 42, 41-3 (Unavailable) 1952. CODEN: KUNSAV. ISSN:  
0023-5563.

AB The importance of stabilizers for remedying the instability of PVC  
plastics is explained from the point of view of form, economy,  
efficiency, and toxicity, and methods of testing stabilizers are  
described. From the point of view of toxicity stabilizers from urea  
are preferable, and new stabilizers were developed by introduction  
of an epoxy group into the mol. of a monophenyl urea; in this mol.  
there are 2 groups which can react with HCl: (1) the urea group  
reacting in the following way:  $\text{-NH.CO.NH}_2 \rightarrow \text{-N:C(OH)NH}_2$   
 $\rightarrow \text{-N:CClNH}_2$ , and (2) the epoxy group reacting with HCl to  
form a chlorohydrin. The 2 effective groups of this stabilizer thus  
form HCl acceptors which have an advantage over metal salts by  
absorbing the Cl of the HCl by forming an org. bond. Another type  
of stabilization is obtained by compds. of the  
**benzalphthalide** type, which by themselves do not possess  
stabilizing properties in PVC but together with the stearates of Pb,  
Cd, Ca, and others improve considerably the action of these known  
stabilizers, since the addn. of the **benzalphthalide**

prevents them from becoming opaque in rolling and keeps them clear and transparent.

- IT **575-61-1, Phthalide, 3-benzylidene-**  
 (derivs., mixts. with stearates, in stabilization of polyvinyl chloride)  
 RN 575-61-1 HCAPLUS  
 CN 1(3H)-Isobenzofuranone, 3-(phenylmethylene)- (9CI) (CA INDEX NAME)



- CC 31 (Synthetic Resins and Plastics)  
 IT Light  
 (vinyl chloride-polymer stabilization to)  
 IT **575-61-1, Phthalide, 3-benzylidene-**  
 (derivs., mixts. with stearates, in stabilization of polyvinyl chloride)  
 IT 57-11-4, Stearic acid  
 (salts, mixts. with **benzalphthalides**, in stabilization of polyvinyl chloride)  
 IT 9002-86-2, Ethylene, chloro-, **homopolymer**  
 (**stabilizers** for)

=> d 167 1-18 ti

- L67 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 TI Method for preparing cosmetic gel with thymogen

- L67 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 TI Furan polymer impregnated wood

- L67 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 TI Preservative and coloring additive for meat products

- L67 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 TI Inorganic polymer-based microcapsules with enhanced formulation stability and delivery of topical active ingredients

- L67 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 TI Oxygen-absorbing composition, oxygen-absorbing **resin**, and **preserving** method



- L67 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Waterborne, biocide-containing coatings for wood
- L67 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Waterborne preservative coatings for wood
- L67 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Wood preservative comprising metal compounds and nitrogen-containing polymers
- L67 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Liquid **preservation** of **polymorphonuclear** leukocytes: effect of various additives on chemotaxis preservation
- L67 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Preservation of produce by gels containing preservatives
- L67 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Transportation and preservation of N-phenylmaleimide with polymerization inhibitors and maleic anhydride
- L67 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Polymeric composition
- L67 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Meat curing compositions and method of use
- L67 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Aqueous agents for preservation of wood
- L67 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Wood **preservation** by organotin **polymers**. I. In situ polymerization of organotin monomers
- L67 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Storage-stable water-dilutable acid adducted epoxy based coating for metal food contact surfaces
- L67 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Chemical preservation of highly moist fodder
- L67 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
TI Interactions between tetracyclines, serum, and the bacterial cell

=> d his 168-

(FILE 'REGISTRY' ENTERED AT 17:18:29 ON 23 JAN 2004)

FILE 'HCAPLUS' ENTERED AT 17:20:12 ON 23 JAN 2004

E ANTIOXIDANTS/CV

L68 54972 S E3  
L69 6289 S L28 AND L68  
L70 258 S L69 AND L50  
L71 258 S L70 AND L30  
L72 6 S L70 AND L31  
L73 124 S L70 AND L32  
L74 1 S L70 AND L37  
L75 84 S L70 AND L40  
L76 0 S L70 AND L41  
L77 43 S L70 AND L42  
L78 3 S (L72 OR L74) NOT (L65 OR L66 OR L67)

=> d 178 1-3 cbib abs hitstr hitind

L78 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:501667 Document No. 133:121343 Gas-barrier packaging laminates for hot-drink containers. Ikenotani, Masakatsu (Tetra Pack Japan K. K., Japan). Jpn. Kokai Tokkyo Koho JP 2000202954 A2 20000725, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-8880 19990118.

AB The laminates consist of a polyolefin outer layer, a fiber substrate layer, a gas-barrier support layer, and a polyolefin inner layer, where anchor coatings between the gas-barrier layer and the polyolefin inner layer contain **preservatives** for hot food. Thus, an Al foil was coated with silicone anchor coatings contg. 10% ascorbic acid Na salt on one side, laminated with LDPE and printed paper on the other side, and sandwiched by LDPE to give a laminate, showing O permeability <5 cm<sup>3</sup>/m<sup>2</sup>-24-h-atm (at 23.degree., relative humidity 50%) and no increase of O conc. in green tea (60-75.degree.) stored in a container made of the laminate for 2 mo.

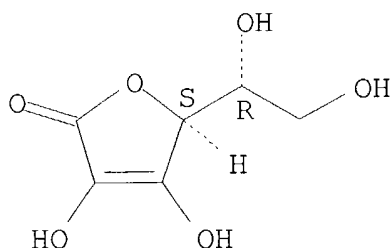
IT 62624-30-0, Ascorbic acid

(**preservatives**, anchor coatings contg.; gas-barrier packaging laminates for hot-drink containers)

RN 62624-30-0 HCAPLUS

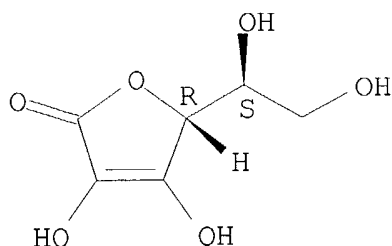
CN Ascorbic acid (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IC ICM B32B027-18  
ICS B32B005-00; B32B027-32; B65D005-56; B65D005-62; B65D081-24
- CC **38-3** (Plastics Fabrication and Uses)  
Section cross-reference(s): 17
- ST gas barrier laminate hot drink container; polyolefin paper laminate  
ascorbic acid **preservative**; LDPE aluminum laminate gas  
barrier drink
- IT **Antioxidants**  
Paper  
(gas-barrier packaging laminates for hot-drink containers)
- IT 1406-18-4, Vitamin E 7317-67-1, L-Ascorbic acid sodium salt  
**62624-30-0**, Ascorbic acid  
(**preservatives**, anchor coatings contg.; gas-barrier  
packaging laminates for hot-drink containers)
- L78 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
1999:65076 Document No. 130:140320 Polyethylene materials containing  
tea leaf powders. Takahashi, Noboru (Takapla K. K., Japan). Jpn.  
Kokai Tokkyo Koho JP 11019197 A2 19990126 Heisei, 3 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 1997-179722 19970704.
- AB Title materials, showing improved bactericidal and antioxidn. effect  
are those prepd. from polyethylene by adding 3-5 phr powd. tea  
leaves and 2-3 phr activated C and molding at 110-130.degree..  
Polyethylene chips contg. above additives optionally assocd. with  
ascorbic acid are suitable for food preservatives, etc.
- IT **50-81-7**, Ascorbic acid, uses  
(polyethylene materials contg. tea leaf powders, activated  
carbon, and optionally ascorbic acid showing bactericidal and  
antioxidn. effect)
- RN 50-81-7 HCAPLUS
- CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A61L009-01  
 ICS A61L009-01; A01N061-00; A01N065-00; A43B017-00; C08K003-04;  
 C08K005-15; C08L023-04; A23L003-3472; A61K007-32; C07D311-62;  
 C09K015-34; C08L097-00

CC **38-3** (Plastics Fabrication and Uses)  
 Section cross-reference(s): 5

IT Antibacterial agents

**Antioxidants**

**Preservatives**

(polyethylene materials contg. tea leaf powders, activated carbon, and optionally ascorbic acid showing bactericidal and antioxidn. effect)

IT **50-81-7**, Ascorbic acid, uses  
 (polyethylene materials contg. tea leaf powders, activated carbon, and optionally ascorbic acid showing bactericidal and antioxidn. effect)

L78 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
 1997:243865 Document No. 126:278457 Active polymer materials.  
 Makarevich, Anna; Pinchuk, Leonid; Kestelman, Vladimir (Academy Science Republic Belarus, Belarus). International Journal of Polymeric Materials, 34(2), 121-131 (English) 1996. CODEN: IJPMCS. ISSN: 0091-4037. Publisher: Gordon & Breach.

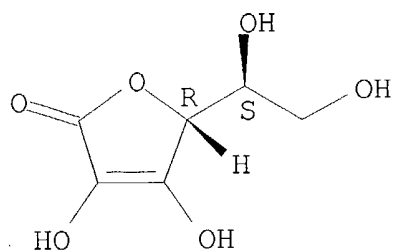
AB The technol. importance of active polymer materials (APM) that exert phys., chem., or biochem. effects on contacting media or other materials is discussed. The exptl. data show high APM efficiency in corrosion prevention, biopurifying, sealing, food packaging, and medicine. The mechanisms of APM effects on compn. and properties of contacting objects are analyzed.

IT **50-81-7**, Ascorbic acid, uses  
 (in modified polymer films for food packaging)

RN 50-81-7 HCAPLUS

CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 17, 60, 63

IT **Antioxidants**

Corrosion inhibitors

Electrets

Food **preservatives**

(properties of modified polymer films contg.)

IT 50-81-7, Ascorbic acid, uses

(in modified polymer films for food packaging)